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THE EVOLUTION OF THE CURRICULUM OF THE
UTAH STATE AGRICULTURAL COLLEGE

A thesis,
submitted to the School of Education of
the Utah State Agricultural College, in
partial fulfillment of the requirements
for the degree of Master of Science.

By Alfred B. Hart

May 1934

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THE EVOLUTION OF THE CURRICULUM OF THE
UTAH STATE AGRICULTURAL COLLEGE

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THE EVOLUTION OF THE CURRICULUM OF THE
UTAH STATE AGRICULTURAL COLLEGE

INTRODUCTION

The chief purpose of this work is to trace the development of the curriculum of the Utah State Agricultural College from the establishment of the institution to the present time, with emphasis upon the forces shaping it. These forces have been active since colonial times, and in them lies the explanation for much of what the college is today.

The Utah State Agricultural College is a part of a much larger system, which has developed parallel to it in many respects, and which has in other respects been a force in determining the direction in which the college was to develop.

With the purpose in mind of gaining a view of the college in relation to its larger setting and an understanding of its development through a knowledge of the forces which brought it into being and shaped its development, the writer feels justified to include a brief discussion of the movement toward federal aid for education, which culminated in the establishment of the land-grant colleges and universities with their powerful stimulus to the democratization of education and to the liberalization of higher learning.

The treatment of the organization of the college and the early years of its existence is general, but later sections consist of the analysis of the changes within the various schools and departments. In this analysis these changes are

noted which have had a bearing upon the evolution of courses. Minor changes and developments, which have had little effect upon the trends under consideration in this paper, have not been considered.

The historical method of research has been used in the selection and organization of the material used in this discussion. The material has in the main been secured from secondary sources, but in so far as possible it has been substantiated by parallel writings from different sources. Doctor A. C. True's "History of Agricultural Education in the United States", has been used largely as a source of material for the part of this work dealing with nation-wide movements. The book is valuable for such a purpose because of the extensive direct quotations embodied from original documents, many of which have been incorporated into this paper.

The material used from Doctor True's work has been compared with the writings of Fletcher Harper Swift, who is an authority on the relations of the federal government to public school finance, and the two are in strict agreement.

The writings of Doctor Paul Monroe have been used as source material and also for the substantiation of other material relating to national movements. The "Survey of Land-Grant Colleges and Universities" directed by Arthur J. Klein has also been consulted, and it substantiates the materials used.

The chief sources of material for the portion of this account dealing specifically with the curriculum of the Utah Agricultural

College have been: The Biennial Reports of the Board of Trustees, The Catalogues of the College, The Bulletins of the College, The Report of the Utah Survey Commission of 1925, and other publications of the college and state as listed in the bibliography. This material is in the main reliable but it has the limitation which characterizes most sources of historical data, that of being fragmentary. Comparisons have been made where sources are parallel and the authentic account presented as nearly as it could be determined.

THE DEVELOPMENT OF FEDERAL AID TO HIGHER EDUCATION

Need and Early Development

The earliest conception of education in the American colonies was, quite naturally, the same as that of the European countries from which the colonists came. "The doctrine that the parent was responsible for the education of the child and therefore should pay for his schooling was long used to hinder the public support of education, especially as applied to primary and secondary schools. For many centuries in the Old World the church rather than the state was looked upon as the proper authority under which public education should be conducted, (and) higher education was primarily for the training of ecclesiastical leaders,¹..." and hence of little concern to the state.

The adoption of the constitution in 1788 determined definitely that the permanent government of the United States was to be democratic in nature. The value of an educated citizenry under such a form of government soon became apparent to statesmen who could see that the only way to secure such a citizenry would be through a system of free public schools supported by taxation.

Washington in his message to congress in 1790 wrote:
"Knowledge is in every country the surest basis of happiness. In one in which the measure of government receive their impression so immediately as in ours, from the sense of the community it is proportionally essential..... Whether this be best

L. True, A. C. - A History of Agricultural Education in the United States p. 18.

served by affording aid to seminaries of learning already established, by the institution of a national university or by other expedients, will be well worth a place in the deliberations of the Legislature." This quotation clearly indicates that Washington believed in education as a means of disseminating knowledge and recognized the necessity for an improved educational system for which the government should feel a responsibility.

Jefferson's belief in education as the safeguard of democracy is clearly indicated in the following extract from a letter which he wrote to Washington in 1786: "It is an axiom in my mind that our liberty can never be safe but in the hands of the people themselves, and that, too, of the people with a certain degree of instruction. This is the business of the State to effect and on a general plan."

Next to Jefferson the most active of our early statesmen in educational matters was President Madison, who wrote, "A popular government without popular information or the means of acquiring it, is but a prologue to a farce or a tragedy, or perhaps both." As a result he believed that "the best service that can be rendered to a country, next to giving it liberty, is in diffusing the mental improvement equally essential to the preservation and enjoyment of that blessing."

The need for an improved system of education was a reality and not merely an illusion of these leaders, as is indicated by

1. Robertson - Messages and Papers of the Presidents Vol. 1 p. 66
2. Monroe, Paul - Text Book in the History of Education p. 713
3. Ibid p. 714

the following quotation from a New England newspaper of 1816, opposing a plan for street lighting: "Artificial lighting is an attempt to interfere with the divine plan of the world, which calls for dark during night time..... Emanations of illuminating gas are injurious..... Lighting streets will incline people to remain outdoors, thus leading to increase of ailments by colds..... The fear of darkness will vanish, and drunkenness and depravity increase."¹ The ignorance of the people regarding science and the application of science is further exemplified by the following answer given by a school board of Lancaster, Ohio in 1829, to a request for the use of the school building for a discussion of the practicability of railways: "You are welcome to use the school house to debate all proper questions, but such things as railroads are impossibilities and rank infidelity..... God never intended that His intelligent creatures should travel at the frightful speed of fifteen miles an hour."²

Movement Leading to the Establishment of Land-Grant Colleges

The chief concern here is with higher education and that primarily as it is related to federal aid. This justifies the omission of an account of the process whereby elementary and secondary education became recognized as the function of the states. However, a brief discussion of the ways in which the states have aided higher education is not amiss inasmuch as it

1. Kerr, W. J. - The Spirit of the Land Grant Institutions
(Bulletin) p. 7

2. Ibid.

has developed into the present system of state support and suggests the methods of federal aid.

"The principal ways in which the several states have aided education may be enumerated as follows: (1) By granting charters with privileges; (2) by freeing officers and students of colleges and universities from military duties; (3) by exempting the persons and property of the officers and students from taxation; (4) by granting land endowments; (5) by granting permanent money endowments by statute law; (6) by making special appropriations from funds raised by taxation; (7) by granting the benefits of lotteries; and (8) by special gifts of buildings and sites. Nearly all of these methods originated among the colonies and were adopted by states.¹"

The following propositions indicate the various relations of the states to education: "(1) In colonial times State, private, and church benevolence worked together; (2) subsequently private and church schools were prominent, still being aided by state appropriations; (3) the gradual cessation of State aid to private and church schools, and the growth of State Universities."²

"The colleges of the American Colonies and some of the States formed early in the history of the United States in many cases received public aid through grants of land or money. A number of these institutions became land-grant colleges after the passage of the Morrill Act of 1862."³

1. Blackmar - History of Federal and State aid to Higher Education p. 345. (Quoted from True, A. C. - History of Agricultural Education in the United States p. 20.)

2. Ibid.

3. True, A. C. - A History of Agricultural Education in the United States p. 19

Proposals for federal aid for education took a great variety of forms. In the constitutional convention of 1787 Charles Pinckney offered a plan for a federal constitution which contained a clause authorizing Congress "to establish a university" but the plan was rejected. A detailed plan for the establishment of a national university was published by Doctor Benjamin Rush of Philadelphia in 1787 or 1788. "Among the subjects of instruction were to be 'agriculture in all the numerous and extensive branches' and 'those parts of natural philosophy which admit of an application to agriculture'."¹ Such plans, while not accepted, point definitely in the direction of federal grants to higher education. In his first annual message to congress in 1790, Washington suggested that science and literature might be aided by "the institution of a national university,"² "in 1796 he definitely recommended the establishment of such an institution."³

The custom of making land-grants for education began in colonial times⁴ and the precedent was built up from year to year. "About 1820 was begun the practice of granting to each state, on admission, two townships of saline lands and from three to five per cent. of the net proceeds from the sale of all public lands within its borders. These grants of land and money were in many cases used at least in part for education. By the internal improvement act of 1841, five hundred thousand acres of public lands were given to each state admitted after

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1. True, A. C. - A History of Agricultural Education in the United States p. 21
 2. Robertson - Messages and Papers of the Presidents Vol. 1, p. 66
 3. True, A. C. - A History of Agricultural Education in the United States p. 21
 4. See page 11 of this thesis.

1800 and these grants were devoted to education after 1845. In 1850 the swamp land-grant act was passed under which fifteen states received over sixty million acres. In twelve states a part or all of the proceeds from the sale of these lands was given to education.¹

The ordinance of 1785 contained a clause reserving from sale "lot No. 16 of every township for the maintenance of public schools within said township."² At the time of the passage of the ordinance the importance of this provision was not recognized, but the precedent which it established was of far reaching importance because it began the policy of using public lands for public education.³

In the ordinance of July 13, 1787, which provided government for the Northwest Territory the following declaration appeared: "religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged."⁴ This ordinance was immediately followed by that of July 23, 1787 which provided for the sale of public lands in Ohio, and provided that section 16 of each township should be reserved for the maintenance of public schools and not more than two townships were to be reserved for the establishment of a university.⁵

1. True, A. C. - A History of Agricultural Education in the United States p. 21

2. Laws of the United States of America 1789-1815, Vol I Chap. 32 p. 565

3. True, A. C. - A History of Agricultural Education in the United States p. 20

4. Ibid. p. 20-21

5. Ibid. p. 21

The significance of these acts was not appreciated by either Congress or the people in general, perhaps because of the Constitutional Convention then in session, which removed a great deal of interest from the old Continental Congress. "Congress granted lands for schools to Ohio when it became a state in 1802 and for a university in 1803. Similar grants of land for educational purposes were made by Congress from time to time to the territories and states formed in the Northwest Territory and beginning with 1805 in Tennessee to the new states in the South and west."¹

"The more important forces which originally influenced Congress in making reservations of school lands may be summarized as follows: (1) the precedents established by the American colonies and by such a state as Georgia, of reserving lands for schools in newly surveyed territory; (2) the need of selling the western lands; (3) the desire to make western immigration attractive; and (4) interest in the cause of education."²

The discussion up to this point has dealt largely with general trends in the educational system of the United States for the purpose of indicating the establishment of the concept that education is a function of government, and to trace the origin and development of the practice of granting public lands for the support of education. The functions of education as in-

1. True, A. C. - A History of Agricultural Education in the United States p. 21

2. Swift, Fletcher Harper - Federal and State Policies in Public School Finance in the United States p. 15

ciently outlined have been powerful in shaping the course of study as education has become a state function.

Colleges as first organized in this country followed very largely the traditional pattern of European institutions in the matter of curriculum. The formal study of language held an important place and utility was frowned upon by educators. Higher education was admittedly for the few. Only those wishing to enter the "learned professions" of law, medicine, and the ministry were offered the opportunities of college training, education being deemed unnecessary for the sons of farmers and mechanics.

These early colleges were very efficient in the work which they undertook, but broad minded people could see that although the liberal arts were valuable they were by no means the only important phases of education. Franklin was conscious of the need for a broader instruction, for in 1749 in his proposal for an academy in Philadelphia, he recommended a liberal course of study and even proposed that "a little gardening, planting, grafting, and inoculation be taught and practiced and now and then excursions be made to the neighboring plantations of the best farmers."¹ The University of Pennsylvania, which developed out of the academy established at this time, offered in its first curriculum, in 1754, a course in the chemistry of agriculture.² Such a subject was looked upon by many of the educators

1. True, A. C. - A History of Agricultural Education in the United States p. 19

2. Ibid. p. 19

of the time as unfit for college instruction, but its incorporation in the course of study marked the beginning of a movement which was to replace language by science as the basis of higher education.

Doctor Rush in his proposal for a national university, published in 1787 or 1788, advocated that among the subjects of instruction should be agriculture and the sciences pertaining to it, but no action was taken in the matter. In spite of the attempts to liberalize higher education it remained much as before, the monopoly of the few, conservative and "classical" in its nature, scornful of the practical, and entirely outside the interests and grasp of the masses. Only through a consistent struggle was the desired result accomplished and then to a large extent through government aid in the form of land grants made possible by the passage of the Morrill Act of 1862. A brief discussion of this movement is necessary at this point.

The Morrill Act

Jonathan Baldwin Turner of Illinois became a strong advocate of improved educational opportunities for the working classes. In this connection he stated, "It is said the farmers and mechanics do not, and will not, read; but I say give them the literature and the education suited to their wants and see if it does not reform and improve them as it has reformed and improved their professional brethren. The agricultural classes

have no practical congenial literature." ¹ Turner was a personal friend of Lincoln and as young men they discussed this problem at intervals between lessons while Turner was teaching the future president the elements of mathematics. ²

Turner worked out an elaborate plan for an industrial university based upon the belief that "all civilized society is, necessarily, divided into two distinct co-operative, not antagonistic, classes. A small class, whose proper business is to teach the true principles of religion, law, medicine, science, art, and literature, and a much larger class who are engaged in some form of labor, commerce, and the arts." ³ He believed that the professional classes already had ample educational institutions while there were practically none for the industrial classes. He contended that this large class of society wanted and should be granted like facilities "for understanding the true philosophy, the science, and art of their several pursuits (their life's business) and of efficiently applying existing knowledge thereto and widening its domain." ⁴

Turner's idea of the purposes of industrial education is further clarified by the following quotation: He believed that the industrial classes should have a system of liberal education for their own class, and adapted to their own pursuits; to create

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1. Davenport, Eugene - History of Collegiate Education in agriculture. (Requote from True, A. C. - A History of Agricultural Education in the United States p. 84)
 2. True, A. C. - A History of Agricultural Education in the United States p. 84
 3. James, E. J. - The Origin of the Land-Grant Act of 1862 p. 11 (Requote from True, A. C. - A History of Agricultural Education in the United States p. 85)
 4. True, A. C. - A History of Agricultural Education in the United States p. 85

for them an industrial literature, adapted to their professional wants, to raise up for them teachers and lecturers, for subordinate institutes, and to elevate them, their pursuits, and their posterity to that relative position in human society for which God designed them."¹

Turner's activities resulted in the establishment of the Illinois Industrial University,² and aroused such interest throughout the country in industrial education.

It is claimed by Mrs. Mary Carriel, Turner's daughter, in her biography of her father, that Turner sent all his documents to Mr. Morrill urging him to introduce a bill into Congress. Bert C. Powell in his Semicentennial History of the University of Illinois substantially confirms the statement, but Morrill has in no place acknowledged receipt of such documents. — Be that as it may, it is probable that Morrill knew of the work of Turner and was influenced by it in spite of the fact that he continually asserted that he did not know where he received the idea which was embodied in the act which bears his name.³

The following resolution was introduced by Mr. Morrill, on February 28, 1856, during the first session of the thirty-fourth Congress: "That the committee on agriculture be requested to inquire into the expediency of establishing one or more national agricultural schools upon the basis of the naval

1. James, S. J. - Origin of Land-Grant Act of 1862 p. 11
(True, A. C. A History of Agricultural Education in the United States p. 85.)

2. True, A. C. A History of Agricultural Education in the United States p. 86

3. Ibid. p. 94

and military schools, in order that one scholar from each congressional district and two from each state at large may receive a scientific practical education at the public expense." Mr. Keitt of South Carolina objected to the resolution and it was not received.¹

Mr. Morrill introduced the first college land-grant bill in the House of Representatives, December 14, 1857. It was entitled "A Bill Donating Public Lands to the Several States and Territories Which May Provide Colleges For the Benefit of Agriculture and Mechanic Arts."² The bill was amended and after a hard fight was passed by both houses of Congress and sent to President Buchanan, who returned it with a veto message, February 26, 1859.³

Morrill introduced his second bill in the House of Representatives December 16, 1861, but it was reported adversely by the committee on public lands to which it had been referred. A similar bill was introduced in the Senate May 2, 1862 by senator Sade. The bill, after being amended, passed in the Senate and was sent to the House, where, through the efforts of Morrill, it came to a vote June 17 and was passed by a large majority.⁴

President Lincoln signed the bill July 2, 1862, the same day that the army of the Potomac began its retreat after the disastrous battle of Malvern Hill. After a long struggle, the college land-grant bill had become a law. The act of 1862 was

1. True, A. C. - A History of Agricultural Education in the United States p. 97

2. Ibid. p. 99

3. Ibid. p. 103

4. Ibid. p. 106

practically the same as the measure of 1857, with the important differences of the "omission of Territories, the increase of the land-grant for each member of Congress from 20,000 to 50,000 acres, the exclusion of the benefits to states while in the act of rebellion, and the requirement to teach military tactics." The passage of the Morrill Act was the culmination of a long movement for agricultural and technical schools. The ideas involved in the measure were no doubt obtained from a large number of sources and was made possible by precedents the origin and development of which have been outlined in this account.

The curriculum of land-grant colleges has been determined, to a very large degree, by the interpretation placed upon the organic act of 1862. The present broad coverings of these institutions has been made possible only through a liberal interpretation of the act. The act provides for a "liberal and practical education of the industrial classes in the several pursuits and professions of life," which gives ample justification for the breadth which these institutions have assumed.

Probably no one has a clearer idea of the purposes of the act than its author. At a celebration at the Massachusetts Agricultural College, June 21, 1887, Mr. Morrill spoke in part as follows: "The land-grant colleges were

founded on the idea that a higher and broader education should be placed in every state within the reach of those whose destiny assigned them to, or may have the courage to choose industrial vocations where the wealth of nations is produced; where advanced civilization unfolds its comforts and where a much larger number of its people need wider educational advantages and impatiently await their possession.

"The design was to open the door to a liberal education to this large class and to tempt them by offering not only sound literary instruction, but something more applicable to the productive employment of life. It would be a mistake to suppose that every student should become either a farmer or a mechanic, when the design comprehended not only instruction for those who hold the plow or follow a trade, but such instruction as any person might need with the world all before them to choose and without the exclusion of those who might prefer to adhere to the classics."¹

In an address before the House of Representatives of the state of Vermont, in defense of the University of Vermont and the State Agricultural College, at Montpelier, Vermont, October 10, 1888, Mr. Morrill made the following enlightening statement regarding the intent of the Land-Grant Act: "Whatever else might be done under the national law of 1862, scientific and classical studies, as already stated were

1. Morrill, Justin S. - An address delivered at the Massachusetts Agricultural College June 21, 1887, on the 25th anniversary of the passage of the Morrill Land-Grant Act. (Quoted from True, A. C. - A History of Agricultural Education in the United States p. 108.)

not to be excluded, were, therefore, to be preserved, and this is set forth at the very starting point, but the national bounty not brought to the front 'branches of learning related to agriculture and the mechanic arts'--learning in the broad fields of the practical sciences, and none are broader than those related to agriculture. The useful was to have greater prominence in the eyes of students as it will have in their after life and not stand unequal and sneered at even in the presence of ancient literature. Military tactics were also to be included, not merely as a healthful physical exercise, but as a valuable incidental acquirement for all young men with patriotic blood in their veins, and upon whom our country must rely as ever ready to stand among its future guardians and defenders. The fundamental idea was to offer an opportunity in every state for a liberal and larger education to larger numbers, not merely to those destined to sedentary professions, but to those much needing higher instruction for the world's business, for the industrial pursuits and professions of life."

"The Bureau of education reported that 'The first want felt in the establishment of this class of schools was the education of men of science to man them, but the first purpose for which they were established was the instruction of able educated trustworthy technologists, such as well informed engineers, architects, miners, agriculturalists, and

I. Morrill, J. S. - State Aid to the Land-Grant Colleges.

An address in behalf of the University of Vermont and the state agricultural college, delivered in the hall of the house of representatives, at Montpelier, October 10, 1868 p. 24 (quoted from True, A. C. - p. 108)

the like,, for which the country was at that time loudly calling."

"Mr. Merrill wished the bill to be broad enough so that the several states might use it to the best advantage. For this a wide latitude of use was necessary. The general wants and local conditions were very different in the different states and for the best use of this fund there must be a great variety allowed in the details, although all the colleges should have the same spirit. He expected the schools of science rather than classical colleges....But in all he wished as a prominent feature the 'useful sciences' to be taught,..... He thought that at least one college in every state should teach military science."

The interpretations given above together with other similar views regarding the purposes of the Morrill Act saved the land-grant colleges from an existence as mere trade schools, and made it possible for them, under broad minded leadership, to develop into scientific colleges of a very high type, in which the so called 'cultural' studies were not excluded. This type of school makes it possible for men to be trained technically in the sciences and practical pursuits of life, and at the same time to gain a desirable knowledge of art and literature. Enemies of the system have continually attempted to restrict the offer-

1. Pearson, F. A. - The Place of Mechanic Arts in Land-Grant Institutions p. 135 (quoted from True, A. C. A History of Agricultural Education in the United States p. 109)
2. Brewer, W. H. - Manuscript of statement of the Intent of the Land-Grant Act of 1862 (quoted from True, A. C. A History of Agricultural Education in the United States p. 107)

ings of the colleges, but the clear interpretations and the broad terms of the original act have acted as safeguards to the system.

The development of the system as a whole will be brought in incidentally as it exerted an influence upon the Utah Institution.

ESTABLISHMENT OF THE UTAH AGRICULTURAL COLLEGE

In acceptance of the conditions of the federal enactment of July 9, 1862, which provided for the donation of lands to the several states and territories which might provide colleges for the benefit of agriculture and the mechanic arts, the Agricultural College of Utah was organized by an enactment of the Territorial legislature which was approved March 8, 1888.¹

The act of March 8, 1888 provided for the appropriation of twenty-five thousand dollars (\$25,000) for the construction of a college building. It also provided for the appointment of a board of trustees who were made responsible to the legislature for complete conduct of the affairs of the college and the experiment station, which was established in connection with it. The trustees were authorized to locate the college on any appropriate site to be selected in Cache County, and to organize a course of instruction as outlined in the act.²

In compliance with the provisions of the act to establish the Agricultural College and an experiment station, the board of trustees, created by that act, met in Logan June 29, 1888, for the purpose of organizing and commencing their official duties. Governor Caleb B. West

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1. Biennial Report of the Board of Trustees Agricultural College of Utah 1891 p. 1
Agricultural college of Utah Catalogue 1922-23 p. 26
 2. National and Territorial Laws Relating to the Agricultural College of Utah p. 6 (bulletin)

was elected president of the board, James T. Hammond, superintendent, and John T. Caine Jr., secretary. The Board of Trustees after organizing took under advisement the matter of selecting a site for the college. Governor West stated that he understood at the time of signing the bill that land for the site of the college was to be donated by Cache County and Logan City, and that inasmuch as the twenty-five thousand dollars (\$25,000) appropriated by the legislature would be required for building purposes, he proposed, and it was carried, that Mr. Hammond should present the matter to the county court and the city council to determine their intentions.¹

The question of the donation of a site for the college was duly presented to the city and county officials by Mr. Hammond, and committees were appointed to investigate the matter and make recommendations. The committees found it difficult to locate a suitable tract of land, sufficient for the purpose and within the price which was thought could be afforded, and therefore no definite arrangements were made during the year 1888.²

The Board of Trustees was notified by Mr. Hammond, in March 1889, that two sites had been selected for their approval. The Board met March 26, and after visiting both of the proposed sites decided to locate the college upon the second flat north-east of Logan City. The site consisted

1. Biennial Report of the Board of Trustees Agricultural College of Utah 1890 p. 1-2

2. Ibid. p. 2

of ninety-two acres of land, which was soon after purchased by Cache County and Logan City and turned over to the Board of Trustees.

At the meeting of the Board March 26, 1889, a seal for the college was adopted and the bonds of the secretary and treasurer were approved. It was decided at this meeting to advertise for plans for a college building which should cost \$20,000, and be the main part or one wing of a larger building.¹

April 15, 1889, the Board of Trustees met at Logan to adopt a plan for the college building. After considering the plans submitted, that of C. L. Thompson was selected. The plan was of the south wing of a building which when completed would be two hundred seventy by one hundred feet. The wings were to be two stories high and the main section, three stories, with a basement under the entire structure.²

A contract for the construction of the college building was let by the Board of Trustees, May 18, 1889, at a meeting held for that purpose in Salt Lake City. The successful bidder was Somner, Peterson and Co., of Logan, whose bid was \$30,350. The contract required that the building be completed by November 1, 1889.³

In the spring of 1890 the Board of Trustees announced that Professor J. W. Sanborn, who had been appointed director

1. Biennial Report of the Board of Trustees Agricultural College of Utah 1890 p. 2

2. Ibid.

3. Ibid.

of the experiment station, and who was to become the first president of the college, was in Utah ready to begin the spring work at the experiment station. The Board reported that Mr. Sanborn was recognized throughout the United States and Europe as one of the most progressive of agricultural investigators. The Board reported further that he was "a gentleman of broad views and liberal culture" and would "with proper support be the instrument of founding one of the most thorough and progressive agricultural institutions in America".¹

Because of the fact that the Morrill Act of July 2, 1862, mentions agriculture first and because agriculture is the basic industry, many of the land-grant colleges assumed it as their name. Following this precedent the legislature gave the Utah institution the official name of the Agricultural College of Utah.²

September 4, 1890, the college ~~was~~ opened for the receipt of students.³ The faculty of the college consisted of the following members: Jeremiah W. Sanborn B.S., president and professor of agriculture; Evert S. Richmond M.S.A., professor of horticulture and botany; William P. Cutter B.S., professor of chemistry; Abbie L. Marlatt B.Sc., domestic economy; Alonzo A. Hillis B.Sc. farm superintendent; J. H. Shell M.E., professor of mechanic arts and mathematics.⁴

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1. Biennial Report - Board of Trustees of the Agricultural College of Utah 1890 p. 3
 2. Agricultural College of Utah - Catalogue 1890-1891 p. 6
 3. Biennial Report - Board of Trustees of the Agricultural College of Utah 1891 p. 1
 4. Agricultural College of Utah - Catalogue 1890-1891 p. 4

Because of the newness of the type of work which the college was undertaking, especially in this region, it was necessary for the trustees to send out of the state for the first faculty members.¹

The college opened with twenty-two students and during the year the enrollment grew to one hundred thirty-nine (139) of whom one hundred six (106) were males and thirty-three (33) were females.²

The offering of the college as announced in the first catalogue consisted of four regular and three special courses as follows: regular courses (1) agriculture, (2) domestic arts, (3) mechanic arts, (4) civil engineering; special courses, (1) a three year course in agriculture (2) a course in irrigation engineering. The last two courses named were graduate courses of one year each.³ A two year commercial course was also scheduled. Only the first two years of the work were taught during the first year because students in the locality were not prepared for the more advanced work, but it was announced that the remainder of the work would be added as the students became prepared for it.⁴ The lack of development of the public schools of the state made it necessary to establish a preparatory department as part of the college in order to fit students who failed in the entrance

1. Hammond, James T. - An address given in the auditorium of the Agricultural College of Utah, March 8, 1934

2. Biennial Report - Board of Trustees of the Agricultural College of Utah 1891 p. 2

3. Agricultural College of Utah - Catalogue 1890-1891 p. 13

4. Ibid. p. 29

examinations, for work in the college.¹ The facts mentioned here regarding the first faculty, enrollment, and curriculum will be discussed in more detail in the following section.

The "national act donating money to agricultural colleges",² which was approved August 30, 1890, brought opportune assistance to the struggling young college and made it possible to enlarge the offering and increase the equipment of the school.³

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1. Agricultural College of Utah - Catalogue 1890-1891 p. 13
 2. National Act Donating Money to Agricultural Colleges. (Public -- No. 249) Approved August 30, 1890. See-- National and Territorial Laws Relating to the Agricultural College of Utah p. 15
 3. Biennial Report of the Board of Trustees of the Agricultural College of Utah, 1891 p. 1

THE EVOLUTION OF THE CURRICULUM

Aims and Purposes of the College

The influence which was exerted upon the college by the educational thinkers presented in the first part of this discussion is clearly indicated by the following stated aims of the college: "The law states the mission of the colleges to be the teaching of 'such branches of learning as relate to agriculture and the mechanic arts'..... A wider purpose came within the purview of the statutes, as witnessed in the following quotation from them: 'in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life'.¹"

"The purposes of Congress are seen in the following quotations from the national law: 'and the interest of which shall be inviolably appropriated by each state, which may take and claim the benefit of this act, to the endowment, support and maintenance of at least one college, where the leading objective shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts..... in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life'.²"

1. Agricultural College of Utah - Catalogue 1890-1891 p. 7

2. Ibid. p. 6

"To the full extent of its resources the college will carry out the broad policy of its founders. First and primarily it 'will teach such branches of learning as relate to agriculture and the mechanic arts'. The former being in the thought of Socrates the mother and nurse of all other industries will receive special attention."

"The wealth and variety of Utah's mineral resources adapted to the arts, are such that the college will fall far short of its duty if it does not give a zealous and earnest attention to mechanic arts and to civil engineering. The young women of the territory attending the college will be put on equal footing with the young men in obtaining a special education for their sphere in life."¹

"Its aims are these: to make education democratic, the poor boy has equal opportunity with the rich; to emphasize most those lines that give occupation to the greatest number, for if we need ten farmers to one lawyer, it may be advisable to spend ten times as much to train farmers: to educate for today and tomorrow not for yesterday; to dignify all necessary pursuits."²

"The dominating spirit of the Agricultural College of Utah is to make the common work of most of the world--the work most men and women must do--both profitable and pleasant. The motto of the college is 'Labor is Life'.³"

1. Agricultural College of Utah - Catalogue 1890-1891 p. 6
2. Agricultural College of Utah Bulletin Vol. 16, No. 2 p. 5
3. Agricultural College of Utah - Catalogue 1921-1922 p. 33

In these expositions on the purposes and aims of the college one can hear echoes of Washington's statement that "knowledge is in every country the surest basis of public happiness";¹ of Jefferson's words, "our liberty can never be safe but in the hands of the people themselves, and that, too, of the people with a certain degree of instruction";² of Madison's belief that "the best service that can be rendered to a country next to giving it liberty, is in diffusing the mental improvement equally essential to the preservation and enjoyment of that blessing";³ of Franklin's proposal to introduce agricultural studies into the curriculum of Philadelphia Academy;⁴ of Jonathan Baldwin Turner's appeal for education suited to the needs of the industrial classes,⁵ and of course, the views of Justin S. Morrill in both the act itself and his interpretation of it.⁶

From the stated aims it is also evident that agriculture was to be given the most prominent place in the course of study of the college and that mechanics and the domestic studies could also be strongly emphasized, while the other branches of learning were to be secondary and receive attention only as they contributed to the stressed studies or supplied elements which were felt to be necessary in making

1. Robertson - Speeches and Papers of the Presidents Vol. 1 p.66
See page 8 of this thesis.
2. Conroe, Paul - Text Book in the History of Education p. 710
3. Ibid. p. 714 See page 9 of this thesis.
4. True, A. C. - A History of Agricultural Education in the United States p. 19 See page 15 of this thesis.
5. Ibid. p. 85. See pages 16-18 of this thesis.
6. See pages 18-24 of this thesis

the education "liberal". Keeping in mind the fact that the college was new and very limited in resources, one would not expect to find a very broad offering during the early years.

The First Course of Study

The course of study as presented in the catalogue for 1890-1891 was as follows:

Regular four year courses

- "1. Course in agriculture
2. Course in domestic art
3. Course in mechanic arts
4. Course in civil engineering."

Special courses

- "1. Three year course in agriculture
2. Course in mining engineering
3. (Course in) irrigation engineering "

The courses in mining and irrigation engineering were to be post graduate courses of one year each. ¹ A two year business course was also scheduled. ² In view of the fact that few students in the region had received previous instruction of the nature offered, the officials of the college felt that it would not be advisable to offer advanced work until the college had trained students for it. Consequently only two years work was offered the first year with the assurance that the remaining work would be

1. Agricultural College of Utah - Catalogue 1890-91 p. 13
2. Biennial Report of the Board of Trustees Agricultural College of Utah 1891 p. 2

added as students were prepared for it.¹

The actual classes as taught during the first year were
as follows:²

Algebra	English Literature	Penmanship
Arithmetic (higher)	Elocution and Reading	Physical Geography
Arithmetic	French	Political Economy
Book-keeping	German	Rhetoric
Civil Government	Grammar	Sewing
Cooking	Grammar (higher)	Shop Work - Iron
Drawing	History	Shop Work - Wood
	Horticulture	

It would seem from this that the expectation aroused by the previous statements of what was to be taught were not entirely correct. Although degree courses were offered only in the industrial fields yet a large amount of weight was placed upon the so-called classical studies.

The nature of the work done by the college in the early years is further clarified by a study of the four year course in agriculture first offered by the college, which follows in full.³

Freshman Year

First Term

Composition and Rhetoric

Higher Arithmetic

Physics

Shop Work and Military Science

1. Agricultural College of Utah - Catalogue 1890-91 p. 29

2. Ibid. p. 15

3. Ibid. p. 15

Second Term

English

Algebra

Physics

Practice in Physics Laboratory

Third Term

English Literature

Algebra

Trigonometry

Chemistry

Shop Work and Military Drill

Sophomore Year

First Term

Horticulture

Chemistry

German or French

Horticultural work

Shop Practice

Second Term

Horticulture

Agricultural Chemistry

German or French

Book-keeping

Chemistry Laboratory

Third Term

Horticulture

Forestry

Bee Keeping

Botany

German or French

Geometry

Industrials

Junior Year

First Term

Agriculture

Botany

Minerology and Geology

Mechanical Drawing

Farm work

Second Term

Geology and Lithology

Botany

Physiology

Laboratory Practice in Botany

Third Term

Zoology

Agriculture

Surveying

Entomology

Farm Work

Senior Year

First Term

Agriculture

Veterinary Science

Logic

Medical Science

Farm work

Second Term

Veterinary Science

Agriculture

Political Economy

Astronomy

Laboratory work

Third Term

Agriculture

Veterinary Science

U. S. Constitution

Optional Study

The course as outlined was general in nature, as was¹
the rule in the early years of the land-grant colleges.
Education in the scientific and technical fields had re-
ceived scant attention before the work was undertaken by
these schools and as a result the body of systematized
knowledge was small and books suitable for college study²
were very few. It became necessary therefore for the
professors in the early schools to systematize their field
and learn with the classes they taught as research work³
was carried on. This condition carried over into the

1. Thompson, W. O. - The Spirit of the Land-Grant Institutions
p. 57. An address delivered at the forty-fifty annual-
Convention of the Association of Land-Grant Colleges and
Universities at Chicago, Illinois, November 16-18, 1901.

2. Byron, E. A. - The spirit of Land-Grant Institutions p. 49
(Bulletin)

3. Thompson, W. O. - The spirit of Land-Grant Institutions p. 57

period after the establishment of the Agricultural College of Utah, but after the passage of the Hatch Act¹ March 2, 1887, authorizing and endowing experiment stations in connection with the agricultural college, the work progressed much more rapidly and the knowledge of agriculture was enormously increased and made available to such an extent that technical work could be taught in the various branches of agriculture.² This condition will be noted more fully later.

The Preparatory Department

The terms of admission to the college were laid down as follows in the Territorial Legislative act of March 8, 1888, which established the college:

"Sec. 15. No student shall be admitted to the institution who has not attained the age of fifteen years, and who does not pass a satisfactory examination in arithmetic, geography, grammar, reading, spelling, and penmanship."³

Because of the lack of development of the public schools of the state, a preparatory department of one year was organized in 1890 at the opening of the college, for the purpose of preparing students who were unable to pass the entrance examinations for regular college work.⁴ The age requirement of fifteen years was suspended for the preparatory department, and the only requirement was that "students must furnish for

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1. Trus, A. C. - A History of agricultural education in the United States p. 108
 2. Thompson, W. C. - The spirit of the Land-Grant institutions p. 57 (Bulletin)
 3. Territorial act of March 8, 1888, Organizing the Agricultural College of Utah, Sec. 15, Catalogue of Agricultural College of Utah 1890-91 p. 27
 4. Agricultural College of Utah - Catalogue 1890-91 p. 15

entrance to both the preparatory department and the college courses, when required, evidence of good moral character."¹

Inasmuch as the secondary school system of the state was undeveloped, the college of necessity could require no more than an elementary school training for admission to its courses, and the preparatory department as organized was definitely on the elementary level.

A comparison of the college as first organized with the secondary schools of today may not be entirely possible, but it is notable that every course as listed for the first year² is now taught on the elementary or secondary level. These facts seem to indicate that the college in 1890 was little more than a secondary school. However, the maturity of the students and the concentration upon the industrial studies probably resulted in a more "finished" product than the present high school graduate. It is also conceivable that the technical courses were comparable to those of college grade at other colleges at that time. The assumption that the college as organized in 1890 was of secondary level is further borne out by the fact that in subsequent years work of secondary level was gradually introduced between the elementary preparatory department and the college course³ until finally four years of secondary work⁴ were required and placed in the hands of the high schools,

1. Agricultural College of Utah - catalogue 1890-91 p. 27
2. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1891 p. 3. see p. 35
3. Ibid. 1901-02 p. 15, 1905-06 p. 19, 1909-10 p. 31, 1911-12 p. 8, Agricultural college of Utah Catalogue 1912-15 p. 41.
4. Agricultural college of Utah Catalogue 1914-15 p. 25

separate from the college,¹ thus freeing the college from all work below college grade. These changes will be treated in full in connection with later developments.

The preparatory department was organized because the elementary schools of the state were poorly developed and it seemed necessary for the college to give elementary work to those who were unable to pass the entrance examinations in the elementary branches.² It was intended to be temporary, but as time went on the demand for such work continued. Educational opportunities had been limited during the early history of the state and many men and women who wished higher education were without the proper foundation. Such people were too old to attend the regular schools of the state and the college, therefore, assumed the responsibility of preparing them for college entrance.³ For ten years after the establishment of the college large numbers of students were enrolled in the preparatory or sub-preparatory department as it was called after the introduction of secondary work, but after that time the number declined until in 1904-05 only thirty-six students registered. At the beginning of the year 1905-06 the course was discontinued.⁴

High School Work at the College

In 1901 the courses of the college were reorganized. Elementary courses in Commerce and agriculture were abolished

1. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1902-04 p. 20, 1905-06 p. 19, 1907-08 p. 15, 1912-13 p. 19, 1914-15 p. 21.
2. Agricultural College of Utah Catalogue 1890-91 p. 15
3. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1905-06 p. 19
4. Ibid.

and an additional year was added to the requirements of the baccalaureate courses. This extra year made a total of three years of secondary work and was organized as a regular three year high school. The reorganization raised the standards of the college courses one year and made it possible to place these courses in agriculture, domestic science, commerce, engineering, and general science on a co-ordinate basis and draw more clearly the line dividing them from the courses of elementary and secondary grade.¹ In that way "the advanced work of the college was greatly strengthened and improved and the courses leading to the degree were made to correspond more nearly with similar courses in the best land-grant colleges of the country".²

The nature of the secondary work at the college after the reorganization in 1901 is summarized in the following statement: "It was thought that the advantages of the college for work in domestic science, agriculture and science should be brought within the reach of young men and women who had completed the work of the district schools, but who were not prepared to enter upon the more advanced courses and could remain in college but a few years. Accordingly subjects peculiar to the different courses were introduced in the first year of the three year

1. Biennial report of the Board of Trustees of the Agricultural College of Utah 1901-02 p. 15
2. Ibid.

courses so that students upon entering the college would begin some of the practical work of the courses taken. The distinctive work of each course was increased and continued through the second and third years. These courses were also arranged so as to give the necessary preparation for admission to the college courses....."¹

The necessity for secondary work in the college was explained by President Kerr in his report to the Board of Trustees in 1906, as follows:

"The conditions throughout the state are such that it will no doubt be necessary for many years to provide at the college for secondary or high school work along industrial lines, such as agriculture, mechanic arts, domestic arts, and commerce. As industrial schools are established in different parts of the state, or better still, as industrial classes are provided in the regular high schools, the work of secondary grade at the college can gradually be eliminated, until eventually the work of this institution may be confined to the regular courses of college grade."²

As more and more students, trained in the high schools of the state, which were rapidly springing up, entered the college it became necessary to readjust the college courses in order that students trained in high schools which did

1. Biennial report of the Board of Trustees of the Agricultural College of Utah 1901-02 p. 15

2. Ibid. 1907-08 p. 19

not teach industrial subjects might enter directly upon collegiate work without loss of time. This readjustment was put into effect in 1907.¹

Raising Standards

Although the college supported a three year high school course after 1901² it did not require three years of high school work for entrance to the college courses until 1911, as indicated by the following quotation:

"Beginning with 1911-12 the college will require three years of high school work for admission to the four year college courses. Students entering the college from other schools in that year must show credits for three years work in some reputable high school."³

An explanation of the raised entrance requirements was given in 1912 as follows:

"A notable departure during the last few years is the raising of the entrance requirements of the college. The institution has always attempted to meet the specific needs of Utah. In the early history of the college, therefore, it was felt that the entrance requirements should not be so high as to discourage students in a state where the high school system was poorly developed. When the high schools began to multiply throughout the state, the entrance requirements were raised. This has already resulted in good; though it was unwise to attempt it earlier."⁴

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1. Biennial report of the Board of Trustees of the Agricultural College of Utah 1907-08 p. 15
 2. Ibid. 1901-02 p. 15
 3. Agricultural College of Utah catalogue 1909-10 p. 51
 4. Biennial report of the Board of Trustees 1911-12 p. 8

The fourth year's work was added to the college high school, but the secondary schools of the state were rapidly increasing in number and enrollment, which brought an order from the Board of Trustees to eliminate gradually the high school department of the college. The first year high school work was discontinued after the year 1912-13 and both the first and second years were discontinued after 1913-14.¹

In 1914-15 the third and fourth years of high school work were taught but after that time no work below college grade was offered except special vocational courses assigned to be short and practical.²

Beginning with the year 1914-15 the entrance requirements of the college were raised one more year, making it necessary for all students entering the college to present evidence of graduation from a standard four year high school or present fifteen (15) units of approved high school work.³ This requirement is considered standard and is still maintained.⁴ In 1914 the Board of Trustees announced: "While on the one hand practical courses have taken the place of the high school, the high standards of our splendid high schools have made it possible to set a high standard for candidacy for the degrees of the college. The so-called standard requirements for entrance and graduation are now

1. Agricultural College of Utah Catalogue 191-15 p. 19
2. Ibid. 1914-15 p. 21
3. Ibid. 1912-13 p. 41
4. Ibid. 1933-34 p. 59

in force in the Utah Agricultural College." ¹

Table I of the appendix gives a comparison of the collegiate work of the college and the preparatory, secondary, and the total enrollments. This table indicates that at no time during the nineteen years from 1895 to 1914 did the number of students registered in regular college courses equal the number of students registered in lower courses, and that during no year was the per centage of collegiate students equal to one third of the entire enrollment. The average per centage of regular college students during the nineteen year period was 14.62. ² The per cent. of collegiate students during the years 1895 to 1901 is relatively high. ² The explanation for this lies in the fact that during that time the secondary work was not well organized on a separate basis, and the work classified as collegiate during that period was at least in part secondary. It is probable that none of the work of the college can be classified as collegiate with any degree of accuracy until after the re-organization which took place in 1901. ³ Table II of the appendix gives a view of the enrollment situation without attempting to classify the students before the reorganization of 1901. Special and vocational students account for the lacking numbers in tables I and II. ⁴

1. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1912-14 p. 6
2. See Table I Appendix
3. Biennial report of the Board of Trustees of the Agricultural College of Utah 1901-02 p. 15
4. See Table II Appendix

In spite of the difficulty in classifying the students of the college during the early period it is clear that elementary and secondary work was very important during these years, and that the elimination of all work below college grade¹ was a distinct aid in improving the collegiate instruction.²

Summer School Organized

The college organized a summer school in 1903. The faculty was given permission to conduct such a session with the understanding that the institution would bear no part of the expense.³

In 1918 the college adopted the four quarter system and school was held almost continually during the year,⁴ but later the six week summer session was reverted to with opportunity for continuation after the regular session ended.

In 1924 the first national summer school was organized at the college. Many famous educators were brought in to supplement the resident faculty.⁵ The session received wide publicity with the result that a larger enrollment was obtained that summer than had ever before been obtained, and which has never been equaled since. The summer session of 1924 has the distinction of being the only summer school

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1. Agricultural College of Utah Catalogue 1914-15 p. 21
 2. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1913-14 p. 6
 3. Ibid. 1903-04 p. 22
 4. Ibid. 1917-18 p. 6
 5. Ibid. 1925-24 p. 10

at which the enrollment was larger than the enrollment of
the regular terms of the same year.¹

Table II of the appendix gives a complete picture of the enrollments at the summer session since its organization. These figures indicate that the summer session has been a very important part of the work of the college, but since it consists of practically the same course as the regular terms it need be considered no further in this connection.

Professorships Established

"On July 2, 1900 the Board of Trustees established professorships in , agriculture, dairy and animal husbandry, animal biology, botany, horticulture, entomology, chemistry and mineralogy, commercial economics and bookkeeping, English language and literature, civil engineering, mechanical engineering, domestic arts, history and civics, mathematics and astronomy, military science and tactics, and physics. By the establishment of professorships a more thorough organization was effected in all the different departments throughout the institution. The professors were thereby placed in charge of and are held responsible for all the work of their respective departments whether in the advanced or elementary subjects."²

The treatment of curricular changes has been general in nature up to this point i. e. these changes have had an

1. See appendix Table II

2. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1899-1900 p. 10

effect upon all of the courses and might be said to be vertical changes. In the following pages an attempt will be made to trace the horizontal development of the curriculum by schools.

Agriculture

Since the college receives its name from the agricultural industry and since the founders of the college stated that it was their aim to put emphasis upon that study,¹ it is appropriate that agriculture receive first consideration here.

During the early years of the college the chief concern was to organize a four year course in agriculture leading to the Bachelor's degree. During the interval between the establishment of the first land-grant college and the founding of the Agricultural College of Utah, professors of agriculture and the sciences closely related to it had had an opportunity to organize what was then known in their respective fields and begin the process of research. The work of research was greatly facilitated by the passage of the Hatch Experiment Station Act March 2, 1887² just a year before the establishment of the Agricultural College of Utah. In fact it is believed by some that without the experiment stations the courses in agriculture and even the colleges themselves could

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1. Agricultural College of Utah Catalogue 1890-91 p. 8
 2. Thompson, W. O. - The Spirit of the Land-Grant Institutions p. 56 (Bulletin)
 3. True, A. C. - A History of Agricultural Education in the United States p. 108

SCHOOL OF AGRICULTURE

1934																				
1932																				
1930																				
1928	Farm Management																			
1926																				
1924																				
1922																				
1920	Farm Management	Animal Husbandry	Dairy Husbandry																	
1918																				
1916	ARBOREY																			
1914		Animal Husbandry	Dairying																	
1912																				
1910																				
1908																				
1906																				
1904																				
1902																				
1900																				
1898																				
1896																				
1894																				
1892																				
1890																				

*Transferred to School of Agricultural Engineering.

not have developed as they have even if they had been able
1
to maintain their existence.

The years immediately after the establishment of the Utah land-grant college were therefore coincident with the period of rapid development in the science of agriculture, contributing to the general store of knowledge through the activities of an energetic experiment station staff.

The course in general agriculture, organized in 1890, continued to be the only offering of the college in that field until 1907. A demand for more specialized knowledge and the development of a more complete organization of subject matter made it possible to reconstruct the curriculum in such a way that majors could be offered in the divisions
2
of the course.

At the beginning of the school year 1907-08 the old agricultural course was broken up into several distinct courses. The first two years were alike for all agricultural students but the third and fourth years were prescribed according to the desired specialty. Regular courses were offered in agronomy, animal husbandry and dairying, horticulture and entomology, irrigation and drainage,
3
veterinary science, and forestry.
4

The school of agriculture was organized in 1903 by the Board of Trustees, together with the schools of co-

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1. Thompson, W. O. - The Spirit of the Land-grant Institutions p. 56 (Bulletin)
 2. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1907-08 p. 13
 3. Ibid. 1907-08 p. 13
 4. Agricultural College of Utah Catalogue 1908-09 p. 55

domestic science, mechanic arts, and general science, for the purpose of facilitating administration.¹

Besides the regular four year courses offered by the college after the reorganization of 1907, there was offered a three year manual training course in agriculture, various practical vocational courses, and a course in irrigation engineering offered in conjunction with the state school of mines.²

In 1910 the courses in the school of agriculture were again shifted. At that time the offering of the school consisted of a short course of two years in general agriculture and four year courses in the following fields: agronomy, horticulture, animal husbandry, and dairying, irrigation and drainage, agricultural chemistry, and economic entomology.³ The offering of the college was increased in 1913 by the addition of major courses in bacteriology and plant pathology.⁴ With the partial restoration of the engineering course and the organization of the school of agricultural engineering in 1911 the course in irrigation and drainage was removed from the school of agriculture ~~to the school of agriculture~~ to the school of agricultural engineering where it rightfully belonged.⁵

The agricultural courses were again revised in 1920 at which time dairying became a separate course and botany was added to the plant pathology course. In 1920 a course was

1. Agricultural College of Utah Catalogue 1908-09 p. 6

2. Ibid. p. 36

3. Ibid. 1909-10 p. 40

4. Ibid. 1913-14 p. 46

5. Ibid. 1911-12 p. 42

added in farm management, and given only that year, and in 1923 a course in agricultural economics was added.

A course in range management was added in 1925, and in 1927 a department of forestry and range was established. After many years of preparation the college was able to organize one of the few standard departments of forestry in the intermountain country. The department was organized in close co-operation with the United States Forest Service, and the college acknowledged indebtedness of R. H. Rutledge, District Forester, and his staff, for valuable advice and assistance in planning the courses and developing the work. The value of such a course had long been recognized but it had been impossible to organize the department before this time. The department of forestry and range was reorganized in 1933 as the school of forestry, under the direction of the dean of the school of agriculture.

The year 1928 witnessed two important changes in the agricultural offering of the college. These changes consisted of the addition of a course in poultry husbandry, and the splitting of the course in dairying into a course in dairy husbandry and a course in dairy manufacturing.

By way of summary the following list of major subjects offered by the school of agriculture and forestry for the school year 1933-34 is given: agricultural economics.

1. Agricultural College of Utah Catalogue 1920-21 p. 65
2. Ibid. 1923-24 p. 50
3. Ibid. 1925-26 p. 45
4. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1926-28 p. 12
5. Agricultural College of Utah Catalogue 1933-34 p. 106
6. Ibid. 1928-29 p. 36

agronomy, animal husbandry, agricultural bacteriology, botany and plant pathology, agricultural chemistry, dairy husbandry, dairy manufacturing, entomology, forestry and range management, horticulture, poultry husbandry, and veterinary science.¹ It is impractical here to go into the requirements for each of these courses. It is sufficient at this point to state that they are organized on the group elective system, which will be discussed later, and are so organized as to give a thorough training in the specialized field without neglecting a general view of the subject as a whole, and without neglecting a background in the "cultural" studies. The method of accomplishing this end will be discussed in connection with the group elective system.

A comparison of the original course in agriculture as outlined in 1890² with the much expanded offering of the school of agriculture in 1933³, gives a very clear picture of the transformation which has come over the college during the period, and shows a striking evolution without taking into account the vertical development,⁴ of the instruction of the college.

Home Economics

In the first course of study the domestic studies were given second place,⁵ and they will be considered in that order here. The first catalogue of the college (1890-91) stated:

"The young women will be placed on an equal footing with the

1. Agricultural College of Utah catalogue 1933-34 p. 27

2. Ibid. See page 55 of this thesis

3. Ibid. See page 52 of this thesis

4. See page 49 and pages 54-49

5. Agricultural College of Utah Catalogue 1890-91 p.13 See p.54

SCHOOL OF HOME ECONOMICS

1934									
1932									Child development
1930									
1928									
1926									
1924									
1922	Food								
1920									
1918									
1916									
1914									
1912									
1910									
1908									
1906									
1904									
1902									School of Home Economics Established
1900									
1898									
1896									
1894									
1892									
1890									

General Home Economics

Textiles & Clothing

Household Administration

Home Sanitation & Construction

Institutional Management

Domestic Art

the young men in obtaining a special education for their sphere of life."¹ For the purpose of giving women "a special education for their sphere of life," the domestic course was organized.

The course in domestic art was general in nature at the time of its organization, as were the other courses offered by the college.²

The school of home economics was established in 1905,³ and has continued as an important part of college ever since.

In 1908 the offering of the school of domestic arts and science consisted of a three year manual training course in domestic science, and a four year college course in domestic science.⁴ The offering in 1911 consisted of a special four year high school course in home economics and a four year college course in domestic art and domestic science.⁵ The offering for 1912 remained the same except for the addition of a short practical course.

With the adoption of the group elective system by the college in 1913-14,⁶ and the order to eliminate high school work from the college after 1912,⁷ the courses in the school of home economics were reconstructed. The reconstructed school offered in 1913-14 a four year college course in

1. Agricultural College of Utah Catalogue 1890-91 p. 8

2. Ibid. p. 15

3. Ibid. 1922-23 p. 58

4. Ibid. 1908-09 p. 55

5. Ibid. 1911-12 p. 42

6. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1913-14 p. 5

7. Agricultural College of Utah Catalogue 1912-13 p. 29

home economics with the opportunity to major in foods and dietetics, home sanitation, and construction or domestic art.¹

The courses were again revised in 1918. The majors offered in that year were: textiles and clothing, foods and dietetics, household administration, and institutional management.² The courses remained the same until 1921 when³ the course in institutional management was discontinued.

For the ten years from 1921 to 1931 the school of home economics offered major courses in foods and dietetics, textiles and clothing, and household administration, but beginning with the year 1931-32 the course in household administration was discontinued and in keeping with the new trend in home economics a department of child development and parental education, with a nursery school in connection, was established.⁴

It is felt that the school of home economics as now organized is well adapted to the needs of the state,⁵ and is an evolution from the trials of earlier years.

Engineering and Mechanic arts

Engineering and mechanic arts have had a very diversified history in the agricultural College of Utah, and it is difficult to follow all changes, but the important developments will be followed as closely as possible.

The land-grant institutions were designed to be colleges for the industrial classes, and much emphasis was placed upon

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1. Agricultural College of Utah Catalogue 1913-14 p. 46
 2. Ibid. 1918-19 p. 50
 3. Ibid. 1921-22 p. 54
 4. Ibid. 1931-32 p. 53
 5. Ibid.

ENGINEERING AND MECHANIC ARTS

1934											
1932											
1850											
1928											
1926											
1924											
1922											
1920											
1918											
1916											
1914											
1912											
1910										<u>School of Agricultural Engineering</u>	
1908											
1906										<u>Engineering Eliminated by State Law</u>	
1904											
1902										<u>School of Mechanic Arts Established</u>	
1900											
1898											
1896											
1894											
1892											
1890											

Irrigation and Reclamation

Roads Highway Engineering

Rural Sanitation

Farm Mechanics

Agricultural Surveying

Rural Architecture

Agricultural Technology

Rural Architecture

Agricultural Technology

Iron Work

Woodwork

Iron Work

Machining Work

Automobile Work

Auto Installation

Mechanical Drawing

School of Engineering

Radio

Civil Engineering

Mechanical Engineering

Farm Power

Farm Machinery

Structural Design

Forming

Automobile Work

Auto Installation

Mechanical Drawing

School of Engineering

Radio

the mechanical subjects.¹ The mechanic arts were considered co-ordinate with agriculture and some institutions combined the two in the name of the college.² The federal law of 1862 stated that the purpose of the land-grant colleges was "to teach such branches of learning as are related to agriculture and the mechanic arts..... in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."³ Inasmuch as it was the policy of the Utah Agricultural College to "carry out the broad policy of its founders..... to the full extent of its resources,....."⁴ it is natural that mechanic arts should have been given an important place in the curriculum.

During the period from 1862 to 1880 the science of engineering had developed out of a scattered mechanical knowledge. The land-grant colleges were instrumental in this development and deserve much credit for the result.⁵

Two of the four courses offered the first year (1890-91) by the college were mechanic arts and civil engineering.⁶

The courses in mechanic arts were made very practical and remained on the vocational level until 1912.⁷ The school of mechanic arts was established in 1903 by the Board of Trustees.⁸ In 1907 the offering of the school con-

1. True, A. C. - A History of Agricultural Education in the United States p. 108

2. Montana, New Mexico, South Dakota, Virginia, Oklahoma

3. Morrill Act of July 2, 1862.

4. Agricultural College of Utah Catalogue 1890-91 p. 8

5. Kerr, W. J. - The Spirit of Land-Grant Institutions p. 13

6. Agricultural College of Utah Catalogue 1890-91 p. 13

7. Ibid. 1913-14 p. 46

8. Ibid. 1922-23 p. 54

sisted of a four year manual training course which might lead to carpentry, forging, machine work, or other trades.¹

In 1911 the four year course in mechanic arts was placed on a high school basis,² and in 1912 a college course in mechanic arts was organized as well as a short vocational course.³ The high school course was eliminated in 1913 with the elimination of the other secondary work in the college, and majors were offered in woodwork, iron work, and machine work.⁴

From 1913 to 1921 the courses in mechanic arts remained practically the same, but in 1921 courses were offered in mechanical drawing, auto work, and technology of mechanic arts in addition to the courses given previously in woodwork, machine work, and iron work.⁵ In 1927 mechanic arts was made a department in the school of engineering.⁶

Engineering, which had played such an important part in the curriculum of the college from its beginning, was eliminated from the course of study by state law in 1906.⁷ This restriction crippled the work of the college especially in engineering work related to agriculture. Courses were offered jointly with the State Schools of Mines at the University, in irrigation engineering,⁸ but the arrange-

1. Agricultural College of Utah Catalogue 1911-12 p. 42

2. Ibid. 1912-13 p. 48

3. Ibid. 1913-14 p. 46

4. Ibid. 1921-22 p. 54

5. Ibid. 1927-28 p. 36

6. Biennial Report of the Board of Trustees 1905-06 p. 23

7. Agricultural College of Utah Catalogue 1908-09 p. 35

8. Ibid.

ment was not satisfactory. By an act of the State Legislature in 1911 Agricultural Engineering was restored to the college, and courses were offered again in that line of work,¹ but the restrictions remained on the other departments of engineering instruction.

The school of agricultural engineering was organized in 1911 to take care of the courses restored by the legislative act of that year. The school as then organized offered four year college courses in irrigation and drainage, road building, hydraulics, and the construction of farm buildings.²

The agricultural engineering courses were reorganized in 1912 in such a way that the offering of the school was as follows: a four year college course in irrigation and drainage, farm mechanics, agricultural surveying, roads, rural architecture, rural sanitation, and agricultural technology.³ The course in agricultural technology was discontinued after 1920,⁴ and the name of the course in roads was changed to highway engineering in 1924,⁵ but otherwise the offering of the school remained the same until 1927.

The Course of Study Act of 1927 will be discussed fully later in relation to the college as a whole, but it should be noted here that the act authorized among other things the establishment of a school of engineering, which meant the removal of restrictions from the field of civil engineering.⁶

1. Agricultural College of Utah Catalogue 1912-13 p. 19

2. Ibid. 1911-12 p. 42

3. Ibid. 1912-13 p. 48

4. Ibid. 1920-21 p. 55

5. Ibid. 1924-25 p. 49

6. Ibid. 1927-28 p. 32

With the organization of the school of engineering in 1927, the school of mechanic arts was discontinued and the work of that school placed under the supervision of the school of engineering. The school of engineering was organized with three departments: civil engineering, agricultural engineering, and mechanic arts. The department of civil engineering offered majors in irrigation and drainage, highway engineering, structural design, and sanitation. The department of agricultural engineering offered majors in irrigation and drainage, farm machinery, farm power, and farm structure. The department of mechanic arts had for its goal the training of high school shop teachers, and also offered two year trade courses in machine work, forging, ¹ woodwork, auto mechanics, and auto ignition. The college courses in mechanic arts were designed to train auto mechanics, garage foremen, auto electricians, and machine shop foremen as well as high school shop teachers. ² In 1933 the courses are the same as described above, except for the addition of ³ radio work and an aviation ground school.

Commerce

Commerce, being considered an industrial field, was included in the original course of study of the college at its opening in 1890. ⁴ The school of commerce and business administration was organized by the Board of Trustees in 1903. ⁵

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1. Agricultural College of Utah Catalogue 1927-28 p. 36
 2. Ibid. 1928-29 p. 54
 3. Ibid. 1933-34 p. 41-45 and 201
 4. Ibid. 1890-91 p. 15
 5. Ibid. 1922-23 p. 35

SCHOOL OF COMMERCE

1934									
1932									
1930	Advertising & Selling		Business Administration						
1928									
1926				Marketing					
1924		Economics							
1922			Accounting		Sociology	Political Science	Agricultural Economics	Secretarial Work	
1920									History*
1918									
1916	Finance							Industrial Management	
1914									
1912									
1910									
1908									
1906									
1904									
1902					Members Committee	School of Commerce Organized			
1900									
1898									
1896									
1894									
1892									
1890									

*transferred to School of Arts and Science.

The offering of the school of commerce in 1908 consisted of a high school course in commerce and a general four year college course in commerce.¹ In 1911 the school offered two special four year high school courses in commerce, and four year college courses in finance, accounting, and industrial management.² In 1912 a short practical course in commerce was also offered.³

The change of the college to the group elective system in 1913,⁴ brought a revision of work in the school of commerce. The offering of the school in 1913-14 was a four year college course with majors in accounting, economics, and political science.⁵ In 1914 major courses in sociology and history were also offered by the school of commerce.⁶

In 1917 a major in finance and banking was added,⁷ and a major course in marketing and minors in stenography and typewriting were added in 1919.⁸ A major in agricultural economics was added in 1921, and in 1927 history was transferred to the school of arts and science.⁹

The course of study act of 1927 removed restrictions from the work in commerce as well as in other fields and made expansion possible.¹⁰ The expanded course as offered in 1928 consisted of majors in the following: accounting, business administration, merchandising, advertising and sell-

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1. Agricultural College of Utah Catalogue 1908-09 p. 35
 2. Ibid. 1911-12 p. 42
 3. Ibid. 1912-13 p. 48
 4. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1913-14 p. 5
 5. Agricultural College of Utah Catalogue 1913-14 p. 46
 6. Ibid. 1914-15 p. 45
 7. Ibid. 1917-18 p. 38
 8. Ibid. 1919-20 p. 65
 9. Ibid. 1921-22 p. 54
 10. Ibid. 1927-28 p. 32

ing, secretarial work, economics, political science, sociology, agricultural economics, and marketing.¹ In 1933 the course in advertising and selling was not offered but otherwise the offering of the school of commerce remains the same.²

Arts and Science

The Morrill Act states that "the leading objective (of the land-grant colleges) shall be without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts..... in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."³ Mr. Morrill in commenting on the act stated, "Whatever else might be done under the national law of 1862, scientific and classical studies, as already stated were not to be excluded, were, therefore, to be preserved."⁴

In spite of this very definite statement that the scientific and classical studies were intended to be found in the curriculum of land-grant colleges in order to promote the "liberal" education of those attending, these very studies had great difficulty in justifying their existence in the Agricultural College of Utah.

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1. Agricultural College of Utah Catalogue 1928-29 p. 47
 2. Ibid. 1933-34 p. 56
 3. Ibid. 1890-91 p. 7
 4. Morrill, J. S. - State Aid to United States Land-Grant Colleges (quoted from True, A. C. - A History of Agricultural Education in the United States p. 108)

SCHOOL OF ARTS AND SCIENCE

1934																					
1932																					
1930																					
1928																					
1926																					
1924																					
1922																					
1920																					
1918	Physics																				
1916	Anthropology & Zoology																				
1914	Geology & Mineralogy	Chemistry																			
1912		Botany	Mathematics																		
1910			English																		
1908			History																		
1906																					
1904																					
1902																					
1900																					
1898																					
1896																					
1894																					
1892																					
1890																					

- 1. Transferred to the School of Commerce.
- 2. Transferred to the School of Education.

Mr. Morrill said, "It would be a mistake to suppose it was intended that every student should become either a farmer or a mechanic, when the design comprehended not only instruction for those who hold the plow or follow a trade, but such instruction as any person might need--with 'the world all before them to choose'-- and without the exclusion of those who might prefer to adhere to the classics." Yet in spite of this the Agricultural College of Utah had to give battle continually for many years against the idea that land-grant institutions were intended to be trade schools in a restricted sense, and therefore had no right to offer scientific or classical studies except as they had a direct bearing on the industrial studies. This feeling however unjustified was a very potent influence and restricted the work of the college for many years.

The school of general science was organized in 1903.² Its scope is explained in the following statement from a report of the Board of Trustees, "There are always some students who do not desire to follow any of the regularly arranged courses of instruction offered by the college. These students prefer to pick and choose from the subjects offered. Such students constitute the school of general science. No special classes of any kind are organized for such students. The classes to which they are assigned are in every case those regularly given in the regular course

1. Morrill, J. S. - An Address at Massachusetts Agricultural College June 21, 1887. (Quoted from True, A. C. - A History of the Agricultural Education in the United States. p. 108)

2. Agricultural College of Utah Catalogue 1928-29 p. 31

of instruction. However, there can be no valid reason for refusing such students instruction. For the purpose of more efficient administration the school of general science is maintained. Since it uses only the work of other departments it has no special request to make of the state."¹

Inasmuch as the classes in the arts and sciences were given in their relationship to the industrial studies it was possible for those interested in such fields to secure at least a partial training in their chosen line of work on the plea that no special classes were organized for their benefit, but teaching this type of work for its own sake was out of the question.

The situation at the Utah Agricultural College is clearly presented in the following quotation: "The question becomes acute only in those states where separate land-grant colleges and state universities are maintained as independent institutions. Here the conflicts between university and land-grant college tend to become most troublesome and frequently these difficulties center about expansion of arts and science offerings by the land-grant colleges. These colleges are thought of as strictly technical institutions or even more narrowly and mistakenly as strictly agricultural colleges. Since the essential functions of the liberal and scientific elements in technical education

1. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1907-08 p. 27

are not very generally understood either by educators or by the public, protests concerning expensive duplication of offerings arises.

"There is no question and there never has been any question that the land-grant university may very properly and is to a certain degree obliged to offer to students opportunities for the general education which it is the purposes of arts and sciences to give."¹

The question of duplication of work in the Agricultural College and the University became very serious and threatened the very existence of the college,² but consolidation of the two schools was not effected, and as time went on both schools became crowded to capacity, leaving no excuse for jealousies and consequently removing many restricting influences from the Agricultural College.³

The nature of the restrictions placed upon the Agricultural College is indicated by the Course of Study Act approved March 9, 1911, which follows: "2087. Course of Study in the Agricultural College. The courses of study in the Agricultural College, until otherwise provided by law, shall comprise agriculture, horticulture, forestry, animal industry, veterinary science, domestic science and art, elementary commerce, elementary surveying, instruction

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1. Klein, Arthur J. - Survey of Land-Grant Colleges and Universities Vol. II p. 4
 2. Majority Report--University Commission 1906
 3. Agricultural College of Utah Catalogue 1927-28 p. 32

in irrigation as applied to measurement, distribution, and application of water for agricultural purposes, for which a degree of engineering in agriculture may be given, military science and tactics, history, language, and the various branches of mathematics, physical and natural science and mechanic arts, with special reference to the liberal and practical education of the industrial classes. But the Agricultural College shall not give courses in liberal arts, pedagogy, the profession of law or medicine, or engineering, except agricultural engineering.¹

"At a meeting of the Board of Trustees, held in June 1903, the school of music was formally established. This school has since been organized with a director and five instructors and a course has been arranged in such a way as to afford the students of the institution who are interested in music an opportunity to pursue work under specialists in both vocal and instrumental departments."²

That the school of music organized in 1903 was not of full collegiate standing is indicated by the following quotation from a later report of the Board of Trustees:

"The reconstruction of the teaching work on the basis of the group-elective system, includes the full academic recognition of art and music. The intolerance of earlier educational ideals has relegated these subjects into an obscurity that

1. Agricultural College of Utah Catalogue 1915-16 p. 63

2. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1913-14 p. 6

made them ineligible as major subjects for those who desired to complete a college course. Under the new arrangement, the departments of art and music are leaping forward, and the effect will be to standardize and make more valuable all work in art.¹

The work in the school of general science, as in the other schools of the college was general in nature during its early years,² but as the college grew and division of work took place in other schools, the work of the school of general science was divided into departments offering major work in the various branches.³

In 1895 the college offered a degree course in elective science and from 1895 to 1904 a general college course in general science.⁴

In 1904-05 the school of general science offered majors in physics, zoology and entomology, geology and mineralogy, chemistry, botany, mathematics, astronomy, English, history, political economy, languages, and political science.⁵ Only minor work was offered in political economy and political science after 1908.⁶ In 1911 a major course in physiology and bacteriology was incorporated into the school, and a minor was offered in art.⁷ Music was offered as a minor in

1. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1913-14 p. 6

2. Ibid 1901-02 p. 22

3. Agricultural College of Utah Catalogue 1895-1904

4. Ibid. 1904-05 p. 52

5. Ibid. 1908-09 p. 64

6. Ibid. 1911-12 p. 65

7. Ibid. 1912-13 p. 71

1
1913 and after 1914 as a major. 2
-57-
3
Art was accepted as a
major subject in 1914.

By 1921 the offering of the school of general science had been greatly enlarged. In that year major courses were offered in art, bacteriology, botany, chemistry, education, English, entomology, foreign languages, geology, history, mathematics, music, physics, physiology, and zoology, and 4
a minor course in library work.

The school of general science was re-named the school of basic arts and science in 1923, and in 1927 the school of 5
arts and science. The Course of Study law of 1927 authorized the establishment of the school of education, which automatically removed that line of work from the school of arts and science. 6
Courses in public speaking were introduced in 7
1927, and in 1930 work in bio-chemistry and public health were 8
added.

The offering of the school of arts and science in 1933-34 consists of the following majors: bacteriology and bio-chemistry, chemistry, English, speech, geology, history, mathematics, modern languages, physics, physiology and public health, and zoology and entomology. 9
Art and music were transferred to the school of education and are listed there in the college catalogue for 10
1933-34.

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1. Agricultural College of Utah Catalogue 1912-13 p. 71
 2. Ibid. 1914-15 p. 60
 3. Ibid. 1914-15 p. 60
 4. Ibid. 1921-22 p. 54
 5. Ibid. 1928-29 p. 31
 6. Ibid. 1927-28 p. 38
 7. Ibid. 1927-28 p. 36
 8. Ibid. 1930-31 p. 52
 9. Ibid. 1933-34 p. 31
 10. Ibid. 1933-34 p. 59

Education

Education courses were considered outside the realm of the Agricultural College during the early years of its existence and the law of 1911 explicitly forbade the teaching of pedagogy.¹ Consequently no work along this line was offered. The problem of training teachers of agriculture and domestic arts and science was settled by the following agreement between the University of Utah and the Agricultural College of Utah: "The agricultural college shall not offer courses in education, but shall advise all students preparing to teach to come to the state school of education to receive instruction and training in professional educational subjects. The school of education shall advise all students wishing to become special teachers in agriculture, domestic science, or domestic art in high school to go to the state Agricultural College for their technical work of college grade in these subjects."²

It is obvious that such an arrangement would work to the disadvantage of the Agricultural College, by allowing it to teach only the technical work in agriculture and home economics to prospective high school teachers, the remainder of the work being left to the University. The growing importance of training high school teachers, and the growing

1. Agricultural College of Utah Catalogue 1915-16 p. 63

see page 64 of this thesis

2. Ibid 1915-16 p. 64

SCHOOL OF EDUCATION

1934						
1932					ATA	MSA
1930						
1928						
1926						<u>School of Education</u> Organized
1924						
1922						
1920						
1918						
1916						
1914						
1912						
1910						
1908						
1906						
1904						
1902						
1900						
1898						
1896						
1894						
1892						
1890						

proportion of college graduates who expected to enter that line of work increased the hardship on the agricultural college.

"By 1917 departments of education were in existence in many land-grant institutions, and there were specialists in agricultural education or distinct departments of agricultural education in a number of them. That year the Bureau of Education reported that forty (40) of the agricultural colleges were offering teacher training courses with a definite amount of professional instruction."¹ The Agricultural College of Utah was not among the forty land-grant institutions offering educational work in 1917, and was therefore one of the most backward institutions in this respect. The precedent was present and the need great, but certain forces were preventing the addition of the needed courses.

The passage of the Smith-Hughes Vocational Education Act in 1917 greatly accelerated the work of education in many of the land-grant colleges,² but still no education was allowed to be taught in the Utah land-grant college. Not until 1921 was the college authorized to offer work in professional education.

An act of the 1921 Legislature required the college to add education to its course of study, and in fulfillment of this requirement a department of education was established offering work in psychology and education.³

1. True, A. C. - A History of Agricultural Education in the United States p. 291

2. Ibid.

3. Agricultural College of Utah Catalogue 1921-22 p. 61

The Course of Study Act of 1927 authorized the establishment of a school of education at the Agricultural College and removed restrictions from its functioning. The school of education was organized with the following departments: psychology, educational methods and teacher training, physical education and community recreation, and educational sociology. The purpose of the school was stated to be "to prepare teachers in the various subjects taught by the college including the professional or vocational groups such as agriculture, home economics, commerce, and mechanic arts; and the arts and sciences." Training for both elementary and high school teachers was offered. Art and music were placed under the school of education in the announcement for 1935.

The functions and importance of the school of education of the Utah Agricultural College are indicated by the following statements from the Utah Educational Survey Commission, 1925: "...the survey commission favors maintenance and extension of teacher training work in the Agricultural College. This conclusion is based upon the obvious fact that in certain respects the college has facilities and contacts which specially fit it for preparing certain types of teachers.....It seems unwise to handicap the state by refusing to utilize to the fullest extent possible the capabilities of the Agricultural

1. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1927-28 p. 11
2. Utah State Agricultural College Catalogue 1933-34 p. 39

College for training teachers in these lines.

"The work peculiar to the resident college, the experiment station and extension work in agriculture and home economics lead logically to the training of vocational teachers."¹

"The close relationship of the Agricultural College to rural life and the understanding of rural conditions and problems which the college may be presumed to command, therefore, make the commission consider carefully also the question of advising extension of its training of elementary-school teachers with special emphasis upon the training of those who expect to teach in rural schools."²

Training teachers has influenced the Utah Agricultural College in much the same way as other land-grant colleges have been affected by the procedure. The following statement gives a clear account of the effect of teacher training on agricultural colleges: "The assumption of the duty of training teachers for the secondary schools has effected the agricultural colleges favorably in several ways. It has greatly broadened the interest of college authorities and teachers in problems of agricultural education and the application of pedagogical principles to the teaching of agriculture. It has opened a new vocational outlet for a

1. Utah Educational Survey 1925 p. 315

2. Ibid. p. 315

considerable number of graduates from the agricultural courses of these colleges. It has given these colleges more prominence in the thought of the pupils in many high schools and brought a considerably number of them to the colleges for long or short courses. It has fundamentally affected the relation of these colleges to the public school system of the several states and made them more fully an essential part of this system. Since the United States has only begun to develop a comprehensive system of vocational education, it may be expected that with the accelerated progress which such education will make, the colleges standing at the head of the agricultural division of this system will have an increasingly important part to play in its development and maintenance.¹

Many factors have, no doubt, had an influence in producing the phenomenal increase of enrollment at the Utah Agricultural College, but it is likely that the training of high school teachers has been responsible at least in part for the 146% increase in collegiate registration between 1921 (the year in which the department of education was organized)² and 1935.

Military Science

The Land-Grant Act of July 2, 1862 expressly stated that military science was to be included in the curriculum

1. True, A. C. - A history of agricultural education in the United States p. 320

2. See Appendix Table II

of colleges organized under the provisions of that act.¹
The Utah institution accepted the responsibility and has continually maintained a military department. In recent years it has been argued by many that it was not intended by the act of 1862 that military training should be compulsory in the land-grant colleges, but rather that it should be an elective study. In this connection it should be remembered that the Morrill act was approved on the same day (July 2, 1862) that the army of the Potomac began its retreat after the disastrous battle at Malvern Hill.² **It is not reasonable that** a Congress so faced by the ill fortune of war, brought about largely through the poor training of leaders should pass an act making the training of military leaders an optional matter. It should also be remembered that no such thing as an elective course was known in 1862.

In speaking on the intent of the act Mr. Morrill said, "Military tactics were also to be included, not merely as a healthful physical exercise, but as a valuable incidental acquirement for all young men with patriotic blood in their veins, and upon whom our country must rely as ever ready to stand among its future guardians and defenders."³

Many changes have taken place in the department of military science but they need not be discussed in detail

here. It is sufficient to state that the department as

1. Agricultural College of Utah Catalogue 1890-91 p. 7
2. Trus, A. C. - A History of Agricultural Education in the United States p. 106
3. Morrill, J. S. - State Aid to U. S. Land-Grant Colleges (quoted from Trus, A. C. - A History of Agricultural Education in the United States p. 108)

now organized offers two levels of instruction, (1) the basic course consisting of two years of drill and instruction, required of all able-bodied male students not otherwise exempt, and (2) the advanced course of two years to which a limited number of students may be elected by the president of the college and the professor of military science, and which may lead to the commission of second Lieutenant in the Officers Reserve Corps of the United States Army. Students who have completed the basic course are qualified as non-commissioned officers in the organized reserve, and may be appointed as such if they so desire. The military unit at the college is organized for instruction in artillery for coast defense. Besides the two courses in military science offered, the department trains a military band¹ under the direction of the band instructor.

Graduate Work

The college issued its first master's degree in 1916,² and since that time graduate work at the college has greatly expanded. The nature of the graduate work of the college is explained by the following quotation from a report of the Board of Trustees: "The experiment station needs well trained assistants who can intelligently do the routine connected with the research. This makes a splendid opportunity for graduate students to do appropriate work in actual research for which

1. Utah State Agricultural College Catalogue 1933-34 p. 64 and 207

2. Utah State Alumni Roll

they can receive credit toward their advanced degree as well as further the work of the station. For this reason our graduate work has not been expensive----- The high quality in the theses demanded and the exacting character of the oral examinations that are given by the committee have kept the standards high.¹ Since research is a major function of the college, and graduate work is based upon research it is only natural that expansion should take place in this type of work.

The growth in graduate work at the college is indicated by the fact that thirty-one students received the degree of Master of Science in 1933. These students represented five schools of the college, namely: agriculture, home economics, arts and science, commerce, and education.²

Course of Study Act of 1927

Most of the legislation pertaining to the curriculum of the college has been discussed as it effected the various divisions of the college, as have other important movements, but for a fuller understanding and an integrated picture it seems advisable to repeat some of the movements with emphasis upon the effects which they exerted upon the college as a whole.

Some aspects of the course of study act of 1927 have already been mentioned but a fuller discussion is necessary

for a more complete understanding of the present curriculum

1. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1925-26 p. 13

2. Utah State Agricultural College Catalogue p. 229-232, 1933

of the college. The following interpretation of the act written on request to President E. G. Peterson by the author of the act, Hon. J. W. Peters, does much to explain the act and its purposes.

Brigham City, Utah
April 22, 1930

President E. G. Peterson
Utah State Agricultural College
Logan, Utah

Dear President Peterson:

I have been unpardonably slow in answering your letter but I have been extremely busy.

You ask me for a statement interpretative of the bill which bore my name and which passed the 1927 session of the Utah Legislature fixing the courses of study at the Utah Agricultural College.

The bill, as passed, reads as follows: "The courses of study in the Agricultural College shall comprise agriculture, horticulture, forestry, animal industry, veterinary science, domestic science and art, commerce, civil engineering, military science and tactics, mechanic arts and pedagogy, and the various arts and sciences basic to these courses. The Agricultural College may give courses for the preparation of

1. Used by permission of President E. G. Peterson (President's office files).

teachers in the foregoing subjects such as to meet the certification requirements of the State Board of Education. But the Agricultural College shall not offer courses in the profession of law, medicine, or engineering, except agricultural and civil engineering, nor shall it award any degree in liberal arts. The work of the college shall be arranged with special reference to the liberal and practical education of the industrial classes."

The first sentence of the bill enumerates the courses that the college is required to give. Its meaning may appear more clear by assuming the bill to read as follows:

"The courses of study--shall comprise"

1. "Agriculture"
2. "Horticulture"
3. "Forestry"
4. "Animal Industry"
5. "Veterinary Science"
6. "Domestic Science and Art"
7. "Commerce"
8. "Civil Engineering"
9. "Military Science and Tactics"
10. "Mechanic Arts"
11. "Pedagogy"
12. "And the various arts"

such as: English

History

Language

Music

Drawing

Etc. etc.

15. "And Sciences"

such as: Chemistry

Geology

Mathematics

Botany

Zoology

Etc. etc.

The fact that the bill does not specifically mention the individual courses to be given under "various arts" such as: English, History, Languages, etc. does not mean that they were not of equal importance to the ones mentioned, or were in any way supplemental to them, but the plain understanding was that they were to be regarded as being on a parity with those mentioned. This is true also of the "sciences" under which no detailed list is given in the bill, such as: Chemistry, Physics, Mathematics, etc., but which were to be regarded as being courses within themselves and on a parity with those mentioned.

The law says "the courses of study shall comprise", among other things, "arts and sciences". This makes it mandatory, as I construe it, that art courses such as: English, History, Language, etc., be given and that science courses, such as: Botany, Zoology, Physics, etc. be given, and that they be of equal importance to the ones mentioned. Certainly they are basic to the development of rural life. Also, as to the

training of teachers, the law permits the Agricultural College to give courses that will prepare teachers in arts and science as well as in agriculture, Domestic Science and Art, etc.

My recollection is that I made a statement on the floor of the senate giving the above interpretation to the bill and I cannot now recall that any adverse or different version was urged or suggested.

I trust the above brief statement will be of help to you. With kind regards,

Sincerely yours,

J. W. Peters (Signed)

It is largely through this act and the liberal interpretation given it that it has been possible for the college to broaden its curriculum to the present proportions. Some restrictions still remain on the work of the college but they are in general not closely related to the major activities of the institution and consequently do not interfere with the functioning of the work. In fact it is probably that close definition of the realm of the college leads to greater efficiency in the line of work which should by law and the intent of the founders be stressed. The use made of the Peters act of 1927 has been adequately discussed in connection with the individual schools.

Group Elective System

Mention has been made of the adoption of the group elective system but it has not been defined nor discussed in the form which it took in the reorganization of the

college, and therefore a more complete explanation will follow.

The early American colleges were very formal and courses were prescribed in detail leaving no place for the initiative of the student. It was not until the latter end of the nineteenth century that freedom began to be allowed in the choice of college work. President Eliot is given credit for the elective system and academic freedom, which developed at Harvard University during the seventh decade of the nineteenth century. The free elective system was not entirely satisfactory because of the difficulty of administration, and consequently the departmental or group elective system originated at Cornell University by Andrew D. White, became more¹ important.

The general tendency among colleges in recent years has been to adopt the group elective system, but the method of administering the system has varied rather widely. In the field of agriculture it has been the general rule for students to take as their major work one of the main divisions of agriculture such as agronomy, horticulture, dairying, animal husbandry, rural economics, etc. However, some students have preferred to major in subdivisions of these, and care has been necessary in order that the field as a whole should not be lost sight of in the over specialization. The recent trend has been to restrict freedom of choice to some extent in order to prevent the evils of over specialization.²

1. True, A. C. - A History of Agricultural Education in the United States p. 125-126

2. Ibid. p. 307

The following extract is taken from the report of the Board of Trustees for the Biennium 1913-1914: "The most notable onward step in the teaching in residence during the biennium, was the adoption of the group elective system. Students, whether candidates for degrees or not, are now allowed to select, with the advice of the faculty, their courses of study. Those who are candidates for degrees must include in their work at least a taste of all the great divisions of human knowledge. Under this system, the precious individuality of students is allowed full and free unfolding, and yet the students are compelled to acquire a wide vision of human knowledge.... ." ¹ Though the system is perhaps not so ideal as the above statement would indicate yet it is, according to A. C. True, a great improvement on the old hard and fast curriculum in use ² previously.

As now operative at the college, the group elective system consists of the following:

General Requirements for Graduation

Candidates for the bachelor of science degree must meet in full all entrance requirements and present 180 quarter hours of college work as outlined below (excluding of the required courses in Physical Education or Military Science).

1. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1913-14 p. 5
2. True, A. C. - A History of Agricultural Education in the United States p. 125

The Four Basic Groups

The candidate must include work in each of the four basic groups as follows:

Language Group: 18 hours (English, Modern Languages, speech). Must include English 10, 11, ¹ unless excused by the English Department.

Social Science Group: 12 hours (History, Economics, Political Science, Sociology).

Biological Science Group: 12 hours (Botany, Zoology, Public Health, Bacteriology, Physiology).

Exact science Group: 12 hours (Chemistry, Physics, Mathematics, Geology, Accounting 101, 102, 103).²

Major Subject

Every student at the time he enters the senior college, must select a major subject in which at the time of graduation he must have completed at least 30 quarter hours of work. The student should consult with the professor in charge of his major work, and must secure his approval of the proposed combination of courses.

.....

Minor Subjects

From eighteen to thirty hours in some field of work closely related to the major subject will be chosen by the candidate with the advice and consent of the major department and the Dean of the School.

-
- 1. English 10 - Freshman Composition 5 hours. English 11 - Sophomore Composition 4 hours.
 - 2. Fundamentals and Problems of Accounting.

Senior College Work

Fifty-four (54) hours of senior College work taken after the candidate has completed at least 90 hours of work must be presented by each candidate for the B. S. degree.¹

"The Major Department has the authority to prescribe not less than thirty, nor more than fifty hours of work in the Major Subject (exclusive of any courses which may have been used to satisfy Junior College requirements in any of the four basic groups. The Major Department and the Dean shall also prescribe such other related courses as may be considered desirable, provided always that the students free electives may not be reduced below thirty-six hours."²

Subjects in which students may major are given in the discussions of the separate schools. These subjects are made large enough that the student may not specialize to such a degree that he loses sight of the subject as a whole.

Quarter Divisions

Prior to 1918 the college operated on a semester basis, conducting classes for two semesters of eighteen weeks each, credits being counted on the basis of semester hours. In 1918 the quarter system was adopted by the college with the resultant change of credits to quarter hours. The semester hour is equal to one and one-half quarter hours. The regular school term under the quarter system consists of three quarters (Fall, Winter, and Spring) of twelve weeks each.³ The

1. Utah State Agricultural College Catalogue 193-34 p. 30-31

2. Ibid. p. 62

3. Ibid. 1919-20 p. 33

summer quarter has been discussed previously.

"The Agricultural College (of Utah) was the first college of its kind in America to adopt the four quarter system of instruction, whereby the college is in practically continuous session throughout the year. This action was approved by the Board of Trustees just prior to the entrance of the United States into the World War. Since that time and largely as a result of war measures, practically all the colleges of America have adopted the four quarter plan. The plan meets admirably the industrial and economic conditions in Utah and is undoubtedly a permanent arrangement in our school."²

Dean of the Faculty

"One of the important changes of the last year (1922) was in the creation of the office of Dean of the Faculty. The office has long been needed as an aid in the standardization of teaching, in effecting economies between departments, and in exercising general supervision of the conduct of the students. Dr. Frank L. West, the first to occupy this position, deserves such an honor by virtue of the contributions he has made to the development of the college in past years. He was chairman of the committees which conducted the surveys and analyses which produced the organization of course of study in the group elective system, the establish-

1. See page 47 of this thesis

2. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1917-18 p. 6

ment of the college on the quarter basis of instruction, and several other fundamental improvements in organization and policy, which other institutions it is interesting to note, adapted to their own use after our successful establishment of the same." ¹ Credit is also due President E. G. Peterson and the Board of Trustees for the progressive changes of recent years and the ~~far~~ sighted attitude which has been taken.

The Extension Service

The work of land-grant colleges is carried on under three divisions--resident instruction, research, and extension. ² The Smith-Lever Extension Act which provided for the establishment of extension departments in the land-grant colleges was passed by Congress and approved by President Wilson May 8, 1914. "This measure made possible the combination of all the useful features of extension work in agriculture and home economics as carried on by the colleges and the United States Department of Agriculture, and opened the way for a great expansion of such work among our farming people." ³ The establishment of the extension service at the college greatly increased its range of influence and made the facts obtained from the work of the resident college and the experiment station available to large numbers of industrialists in a useable way, thus

1. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1921-22 p. 16
2. True, A. C. - A History of Agricultural Education in the United States p. 205
3. Ibid. p. 261

greatly increasing the value of the work done.

Status in 1917

By 1917 "the Agricultural Colleges had come to the close of a great period of development of higher education in this country,.....with a strong and growing organization and with marked public approbation, as shown by the number of students and the provision for the expansion of their functions under the extension and vocational education acts. They were being drawn more and more into the general current of the movement for the improvement of higher education and were being impelled to co-operate with the other higher institutions in the study of educational problems and the working out of general plans which affected the interests and welfare of all colleges and universities. To them as to other higher institutions the World War brought an unescapable crisis, followed by a new development of their activities."¹

The Agricultural College and the World War

The land-grant colleges being as they are the only educational institutions with federal connections, naturally, played a very important role in the war and post-war programs of the United States. The Utah Agricultural College co-operated with the federal government to the best of its ability in the war and post-war programs. The R. O. T. C. at the college trained 492 young men during 1917-18. During the summer of 1918 six hundred eighty soldier mechanics were

1. True, A. C. * A History of Agricultural Education in the United States p. 294

trained by the institution. Seven hundred twenty-four men were given collegiate and vocational military training at the college after the establishment of a unit of the Students Army Training Corps, in 1918. Of the former students of the Utah Agricultural College who saw service in the war a large percentage were commissioned.

Besides training men for the war, the college co-operated with the Department of Agriculture and the Food Administration Board to increase the production of food to supply the army of the United States as to aid the armies of the Allies. The food problem was of the utmost importance in the winning of the war, and the college worked faithfully to increase production throughout the state.

After the dreadful orgy of war had come to an end the country was faced with the problem of returning the thousands of young men in the army to useful positions in peaceful society. A "unique educational enterprise" inaugurated by the Y.M.C.A. for the benefit of the American Soldiers in France was later taken over by the Army Educational Commission and the Agricultural Colleges were called upon for the fulfillment of a part of the program, relating to agricultural education. A large share in the work of rehabilitating soldiers injured in the war was also intrusted to the Agricultural Colleges. The rehabilitation work was first placed under the general supervision of the Federal Board of Vocat-
1. Agricultural College of Utah Catalogue 1919-20 p. 20

ional Education, but in 1921 it was transferred to the
1
Veteran's Bureau.

The rehabilitation work at the agricultural college of Utah is explained in the following quotation from the report of Professor Ray B. Kent, director of Vocational Education for the college in 1919:

"Along with other similar institutions, the agricultural College of Utah was asked to train disabled men in the various lines of work which we are teaching here. The first men to arrive came in March 1919, and the number has steadily increased from that time until now we have an enrollment of 170..... The tuition for these men has made it possible to extend our work this year, which we probably would not have been able to do had it not been for the revenues derived in this way. Besides this, the Federal Board of Vocational Education has loaned us approximately \$25,-000 worth of machinery..... The Federal Board at the present time has one man stationed here as co-ordinator to aid us in handling their work. We are offering besides our regular vocational courses, special courses in the following lines: agriculture majors, animal husbandry, agronomy, bee culture, and poultry work; highway construction, concrete construction, farm mechanics, automobile and tractor work."²

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1. True, A. C. - A History of Agricultural Education in the United States p. 299
 2. Biennial Report of the Board of Trustees of the Agricultural College of Utah 1919-20 p. 123

The attitude of the college toward this work is indicated by the following statement from the report of the Board of Trustees for the Biennium 1919-1920.

The college is proud of its ability to be of service in re-training hundreds of young men, disabled during the war, for usefulness in one or another trade or industry. Our contact with the Federal Board of Vocational Education, Division of Rehabilitation, provides for full reimbursement to the college in this important work in the interest of the young men who, by reason of their heroism and devotion to our country, will always be objects of our eager sympathy.¹

The college aided in the training of ex-soldiers who had not been injured in service as well as in the rehabilitation work. The following figures compiled from the catalogues of the college give some indication of the amount of this work, by giving the enrollments of ex-service men in the college from 1923² to 1927.

1923-24	55 collegiate	66 vocational
1924-25	21 collegiate	3 vocational
1925-26	9 collegiate	2 vocational
1926-27	1 collegiate	

Service during the Agricultural Depression of 1921

"For two years after the close of the war there was a great increase in the number of students of agriculture in the

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1. Biennial report of the board of trustees of the Agricultural College of Utah 1919-1920 p. 12
 2. Agricultural College of Utah Catalogue 1924 -- 1926

colleges due to the return of students whose courses had been interrupted by the war, the rehabilitation work, and the general prosperity of the farmers..... The economic depression of agriculture, which began in 1921 brought peculiar problems and intensified the desirability of more careful and thorough attention to the needs of college teaching of agriculture.¹ This statement was made about the agricultural colleges in general but it is applicable to the Utah Agricultural College. An examination of the agricultural enrollment of the college for the two years following the war (appendix Table II), bears out the statement about agricultural enrollments, and also indicates the falling off which resulted from the agricultural depression on 1921. "The enrollment of the Agricultural College suffered along with that of similar institutions all over the country as a result of the economic depression in agriculture which followed the war."²

These adverse times for the agriculturist necessitated many readjustments on the part of the college. Many problems had to be solved in relation to the future conduct of Utah's most important industry, which demanded that even greater attention be devoted to the training of agricultural leaders and of farmers in general.

The success which the college attained in these activities is pointed out in the following statement:

1. True, A. C. - A History of Agricultural Education in the United States p. 309
2. Utah Educational Survey 1925 p. 309

"In short, during a period of great economic depression the agricultural college of Utah served the agricultural interests of the state to an extent reached by few states, even though several which it outranks in the respects covered by the tabulation above (tables omitted) have attained a degree of development and of wealth much greater than that of Utah. The complaint frequently heard in Utah, that the Agricultural College is not giving enough attention to agriculture is due therefore, to some cause other than failure to provide agricultural education and enroll agricultural students."¹

The College Accredited

See Page 91a

The college received recognition for its advancement and for the high quality of its work in 1927 by being admitted to the accredited list of the Association of American Universities; "which means that the college has received the mark of quality in scholarship."² By reason of this recognition the degrees issued by the college are accepted as standard by all the higher colleges and universities of the country, and that credits given by the college may be transferred at full value to other institutions.

The Utah Legislature codified the state laws relating to the college in 1929 and changed the name to Utah State Agricultural College.³

The College in Action

- See Utah State Agricultural College as located in a
1. Utah Educational Survey 1925 Report p. 511
 2. Agricultural College of Utah Catalogue 1927-28 p. 52
 3. Ibid. 1929-30 p. 56

The advantages of being accepted as an accredited institution became apparent to the authorities of the college and definite steps were taken to get the curriculum of the college organized in such a way that acceptance by the association would be possible. In pursuance of this purpose Dr. Frank L. West went to the University of California, studied the organization of the curriculum of that institution, and conferred with the deans regarding standards. Upon his return to Logan Dr. West made definite recommendations to the college council which resulted in a number of changes in the curriculum. These changes had to do chiefly with the relation of upper and lower division work. A more definite differentiation was made between work on the two levels of college instruction, the requirements for entrance to senior college standing were increased, and a number of upper division courses were lowered to junior college, thus making it possible to increase the standard of work in the college in general.¹

The stiffening of the requirements for entrance to upper division work is indicated by the changes in requirements regarding group work to be taken during the first two years. In 1926-27 the college required that students complete one half of the total group requirements for graduation and 1/3 of three of the groups required for graduation, during the first two years.² In 1927-28 the college required that students complete forty-five quarter hours of credit in the four basic groups with not less than six hours in each of three of these groups.³ In 1928-29 the requirement read, "During the first two years the student is expected to completely satisfy the entrance requirements and complete 90 hours of college work which shall include 54 hours of work in the four basic groups...."⁴

1. An interview with Dr. Frank L. West

2. Agricultural College of Utah Catalogue 1926-27 p. 48

3. Ibid. 1927-28 p. 72

4. Ibid. 1928-29 p. 77

community whose interests are distinctly rural. Such a setting is very appropriate for an agricultural college. The lack of artificialities and the emphasis placed upon rural life completes an environment in which the rural youth can feel at home, and gain his education without meeting the influences which might turn him from the life for which his background fits him, or away from sympathy with the class of society from which he sprang. It is not intended that all the young people from rural communities should return to their native environment and become farmers, but it is intended that they should retain a respect and sympathy for rural life and supply the much needed leadership for the rural communities. This leadership is not composed of technical agriculturalists entirely but included also the professional classes whose sympathy is very essential to the proper functioning of rural life.

The place of the teacher in the rural community is very important, inasmuch as he is often the best educated person in the community and is looked up to for leadership and guidance. Under these conditions it is a decided advantage to the community if the teacher has a rural background which might give him more sympathy with the people with whom he labors and an insight into their problems.

With these considerations in mind it seems that the policy of the college in training the rural youth of the state in the broad liberalized, and training rural teachers not only in agriculture but in the arts and sciences as

well is not only justifiable but highly advantageous to the agricultural interests of the state.

The following is Doctor True's conception of the work of agricultural colleges: "(a) The general aim of the agricultural colleges should be to prepare students to live in a rural community and work in agriculture or to work in the interests of agriculture and rural life, wherever they might live.

(b) The peculiar objective of the individual college will vary with its environment, clientele, and resources, but may include training for the following pursuits in the agricultural field:

1. General or mixed farming.
2. special farming such as seed growing, truck growing, orchard management, greenhouse management, animal breeding (beef cattle, hogs, horses, etc.) dairy production, and poultry production.
3. teaching in colleges or schools, extension work, county agent work, journalism.
4. 4. research and experiment station work.
5. administrative and regulatory work.¹

A study of the curriculum of the college and the purposes of such schools from the agricultural point of view as expressed by Doctor True leads to the conclusion that the Agricultural College of Utah is attaining great success in the accomplishment of these purposes.²

1. True, A. C. - A History of Agricultural Education in the United States p. 104

2. Utah Educational Survey 1925 p. 311

The organization of the agricultural College makes it a dynamic institution. Instead of being dependent wholly upon textbooks as the source of information which would tend to stereotype the work in an impractical form, the college can through the experiment station, test out new theories, apply general information to local conditions, and in general make the store of information a living, growing organism.

After truths have been discovered by the experiment station it is the duty of the resident college to pass these facts, together with the compiled body of knowledge found in text books, and the discoveries of other institutions, on to the young people who are to be leaders in the state. Through the leadership trained at the college and the activities of the extension division this knowledge is dispersed throughout the state in a usable form.

"Probably no institutions have grown more rapidly in power and in public favor than the land-grant colleges. These institutions distinctly belong to the state, at the same time they are the only group of institutions with federal affiliations. Because of this dual attachment they have played an increasingly important part in developing not only our great national resources but also a true national spirit. The important place which the applied sciences now hold in modern university curricula is in a large measure due to the progressive educational policies

of the land-grant colleges."

an understanding of the place which the land-grant system as a whole occupies in the educational system of America, and the influence it has exerted upon collegiate education in general, is necessary to a diagnosis of the curriculum of an individual college. The following passage indicates the conformity of the Utah agricultural college to the general trend in the land-grant system as well as giving the direction of the trend:

"In this period (1898-1916) education became far more democratic. The idea that 'not only should college education be open to everybody, but that nearly everybody should have it,' had been widely spread, but experience had shown that the real problem was the selection by liberal and democratic methods of those who would profit by higher education. The college curriculum had been greatly expanded and liberalized. Its administration under a free elective system had been developed and pursued to an extreme, but a reaction had set in which was resulting in the adoption of the group system of electives."

From the quotations given earlier in this paper it is evident that Washington, Jefferson, and Madison, the three presidents who took the most active part in educational

affairs during the early years of the republic, believed in
1. Capen, W. P.; John, W. C. - A Survey of Higher Education
1918-1918 (Quoted from True, A. C. - A History of Ag-
ricultural Education in the United States p. 293
2. True, A. C. - A History of Agricultural Education in the
United States p. 290

education as the dissemination of knowledge for the enlightenment of the citizens of the country that they might participate intelligently in the affairs of government and live their own lives happily and well. The writer believes that this purpose of education is accomplished by the present curriculum of the college as it is organized in co-operation with the other divisions of the college.

The interpretation of the Morrill Act has been considered fully in earlier pages, and its coincidence with the curriculum of the Utah State Agricultural College has been pointed out as developments have been noted.

With these considerations in mind the writer agrees with the statement of President H. G. Peterson that the present curriculum of the college embodies the intentions of the founders of the land-grant college system, and the founders of the Utah State Agricultural College.

SUMMARY

The Agricultural College of Utah was established by an act of the Territorial legislature, which was approved March 8, 1888, and which accepted the terms of the Morrill Act of July 2, 1862.

The college was opened for instruction September 4, 1890. Because of the previous lack of educational facilities, preparatory work of elementary and secondary level became an important part of the college during its early years; more students being trained in these departments than in the regular college courses. Elementary work was discontinued in 1905, and no high school work was offered after 1915, although vocational courses continued to fulfill some of the functions previously carried by these departments.

As the school system of the state developed the college raised its entrance requirements until in 1914 it was asserted by the Board of Trustees that the so-called standard requirements for entrance and graduation were in effect at the college.

All courses as originally organized were general in nature and continued to be so for from fourteen to twenty years thereafter. These departments of instruction gave little choice of subject matter except perhaps in general science or elective science as it was called during the first year of its existence (1895). The offering of the college during this period was theoretically limited to

the industrial fields, but in practice considerable emphasis was placed upon the "classical" studies, through the graduation requirements.

During its entire existence the college has striven to adapt itself to the needs of the people of the state. Entrance requirements have been maintained at levels which best suited the needs of the people, classes have been organized with the view of giving the training most needed in the state, and special services have been rendered the industrial classes, through the efforts of the experiment station and the extension service.

The college has given assistance to the state and federal governments both in emergencies and in less pressing situations. The definite state control together with the national connections has made such co-operation possible, thus greatly increasing the value of the services rendered.

The development of the Agricultural College of Utah has strikingly paralleled the growth of the landgrant college movement of which it is a part. The Utah institution has been in the vanguard in many important developments such as the adoption of quarter divisions and the group elective system. It has stood well to the front when not hindered by adverse legislation.

Jealousy and conflict developed in Utah between the Agricultural College and the State University in such the

same manner as in other states where similar institutions were established in the same relationship. In Utah, as in other states where this situation existed, the conflict took the form of restricting the offering of the Agricultural College in the arts and sciences. These influences greatly hampered the college for many years, but with the phenomenal increase in college enrollment throughout the state and nation in recent years, much of the cause for conflict has been removed with the resultant increase in the offering of the college. The course of study act of 1927 gave legal recognition to this development, and made possible the organization of the present curriculum of the college.

The growth and improvement of the college and the high standards which it has been able to develop have resulted largely through the efforts of the progressive far-sighted men who have been members of the Board of Trustees, administrative officers of the college, and members of the college faculty.

The present curriculum of the college is the result of the movement for democratic higher education which has been active since colonial times.

SUGGESTED CHANGES IN GROUP REQUIREMENTS

As stated earlier the purpose of the group requirements of the college is to give the student during his first two years a broad general training by requiring study in a variety of cultural fields. The group requirements as now in force (1931-34)¹ allow the student to select the classes to be used to fill these requirements from a large group of technical subjects either in the Junior or Senior College.

The advocates of the new group requirements believe that the old system fails in its purpose in that the courses offered to fill the requirements are often highly specialized in nature, having for their purpose the preparation of students^{for} future work in that particular subject rather than^{giving} a general understanding of the field. The new system advocates the establishment of special classes of a general nature organized in such a way that the student will be given an insight into the field as a whole and not be burdened with the fact and theory related to the subject, that he may receive the philosophy of the subject rather than a technical knowledge of it.

Under the new plan a student who has selected his major at the time of enrollment in the Junior College will not be required to take the general courses in that field to fill his group requirements but may substitute the ^{re-}quisites for his chosen work, however, in the other fields he will be required to take the general courses offered.

1. See page 82 of this thesis.

The new system would make it impossible for a student to receive upper division credit before completing the group requirements, and would lower the number of hours required to fill the groups from 54 to 45.

The new system of group requirements which may be put into effect in 1934-35 is organized as follows:

"Junior College students will be required to complete 10 hours in four groups of subjects and 5 hours in the fifth group before attaining senior college standing as follows:

Exact and Physical Sciences: 10 hours. Courses offered will be five credit hours. (General Chemistry, General Physics, General Geology, General Mathematics.)

Language-arts: 10 hours. Courses of five hours offered. (English Composition, the only required course in the new plan, Oral English, General Literature.)

Social Science: 10 hours. Five hour courses offered in several subjects. (General social science, General Economics, General Sociology, General Political Science and General Psychology.)

Biological Science: 10 hours. Five hour courses offered. (General Botany, General Zoology, Physiology, Bacteriology, Nutrition.)

Group Five: 5 hours. No five hour courses listed. (Music Appreciation, Art Appreciation, Drama Appreciation and General Activity Courses.) appreciation classes in this group are three hour courses. The courses in General Activity, which will neither include or replace any existing classes, are two

hour courses. Total requirement for senior college standing is the completion of 45 quarter hours, or one year's work."

1. Jacobsen, Dr. E. A.- An article in the Utah State quarterly May, 1934. pp. 8-11.

A P P E N D I X

TABLE I

Comparison of Collegiate Enrollment With Preparatory, Secondary, and Total Enrollment for the Years 1895-1913¹

Year	Regular Collegiate	% Regular Collegiate	Preparatory	High School	Total
1895	129	24.84	314		497
1896	121	24.94	312		485
1897	112	25.16	194		449
1898	140	29.43	207		479
1899	110	22.40	249		491
1900	100	26.31	12	69	380
1901	62	12.02	73	318	516
1902	33	6.05	68	347	545
1903	41	6.87	47	402	596
1904	29	3.98	36	451	727
1905	23	3.44		436	657
1906	29	3.77		373	769
1907	33	4.30		515	767
1908	36	4.24		499	850
1909	105	9.02		641	1164
1910	128	11.57		614	1106
1911	238	15.79		928	1417
1912	268	22.94		488	1168
1913	317	28.65		339	1072
		Average			
Total	2054	14.62	1512	6421	14045

(Compiled from college catalogues.)

1. Vocational and special students account for the missing numbers.

TABLE II

Part I

Enrollment by years from 1890 - 1933 at the Utah State
Agricultural College

Year	Collegiate	Total	Summer Session	Grand Total	Agriculture Majors
1890		159			
1891		292			
1892		366			
1893		264			
1894		360			
1895		497			
1896		485			
1897		449			
1898		479			
1899		491			
1900		380			
1901		516			
1902	33	545		545	
1903	41	596	56	632	
1904	29	706	21	727	
1905	28	631	56	667	
1906	29	693	76	769	
1907	33	687	80	767	
1908	36	750	100	850	
1909	105	1049	115	1164	
1910	128	966	140	1106	
1911	238	1267	150	1417	

TABLE II

Part II

Year	Collegiate	Total	Summer Session	Grand Total	Agriculture Majors
1912	268	944	224	1168	
1913	317	804	268	1072	
1914	540	859	207	1046	221
1915	640	875	208	1083	210
1916	667	914	256	1170	203
1917	498	837	196	1033	121
1918	372	589	232	821	76
1919	665	1225	241	1466	203
1920	670	1174	347	1521	174
1921	716	1197	474	1671	156
1922	769	1144	582	1726	171
1923	757	952	451	1403	172
1924	881	986	1165	2149	152
1925	949	1041	795	1836	131
1926	1088	1162	602	1659	138
1927	1152	1222	500	1639	175
1928	1243	1294	500	1714	233
1929	1324	1383	483	1808	240
1930	1405	1454	503	1888	333
1931	1570	1632	370	1921	377
1932	1654	1675	668	2207	334

*Students repeating counted but once.

(Compiled by registrar's Office.)

TABLE OF IMPORTANT EVENTS

- 1888 College and Experiment Station Founded.
- 1890 College opened for instruction.
- 1900 Professorships established.
- 1901 Courses reorganized.--Work of college level
differentiated from preparatory work.
Three year high school organized.
- 1903 College organized into schools.
- 1905 Elementary work discontinued.
- 1906 Engineering eliminated by state law.
- 1907 Agricultural course broken up.
- 1911 Agricultural engineering restored.
Three years of high school work required
for entrance to college courses.
- 1913 Group-elective system adopted.
- 1914 Four years of high school work required
for entrance to college courses.
- 1914 Smith-Lever Extension Act passed.
- 1915 High school work eliminated.
- 1918 Quarter division of term adopted.
- 1921 Education introduced.
- 1922 Office of Dean of the Faculty created.
- 1924 Expansion of the curriculum through the
Course of Study Act.
College accredited.
- 1929 State laws codified.

SUMMARY OF COLLEGIATE COURSES

The following charts present a graphic representation of the development of major courses in the college by schools. The horizontal lines represent years and the vertical lines represent major courses. The time of organization of the schools is indicated on the right sides of the charts.

SCHOOL OF AGRICULTURE

1934																					
1932																					
1930																					
1928	Farm Management																				
1926																					
1924																					
1922																					
1920	Farm Management																				
1918																					
1916																					
1914																					
1912																					
1910																					
1908																					
1906																					
1904																					
1902																					
1900																					
1899																					
1896																					
1894																					
1892																					
1890																					

*Transferred to school of agricultural Engineering.

SCHOOL OF COMMERCE

1934									
1932									
1930	Advertising & Selling		Business Administration						
1928				Marketing					Secretarial Work
1926									
1924	Economics		Accounting	Marketing	Sociology	Political Science	Agricultural Economics		
1922								History	
1920									
1918									
1916								Industrial Management	
1914	Finance								
1912									
1910									
1908									
1906									
1904									
1902									School of commerce organized
1900									
1898									
1896									
1894									
1892									
1890									

*Transferred to School Of Arts and Science.

SCHOOL OF ARTS AND SCIENCE

1934																				
1932																				
1930																				
1928																				
1926																				
1924																				
1922																				
1920																				
1918																				
1916																				
1914																				
1912																				
1910																				
1908																				
1906																				
1904																				
1902																				General science
1900																				General science
1898																				
1896																				
1894																				Elective Science
1892																				
1890																				

1. Transferred to the School of Commerce.
 2. Transferred to the School of Education.

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